

FRANCIS DAVIS ON SINATRA'S MUSIC/TRAVEL: BUENOS AIRES

The Atlantic Monthly

SEPTEMBER 1998

Who Will Own Your Next Good Idea?

The battle over the future of intellectual property

by Charles C. Mann

THE ART OF THE ESSAY

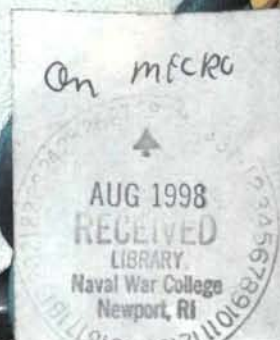
by Cynthia Ozick

COULD MAD-COW DISEASE HAPPEN HERE?

by Ellen Ruppel Shell

EUROPE'S FULCRUM STATE

by Robert D. Kaplan



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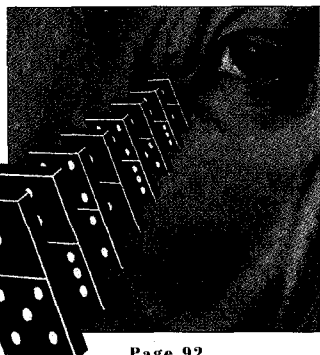


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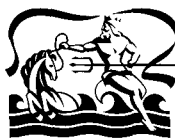
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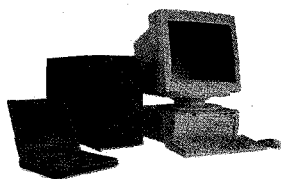
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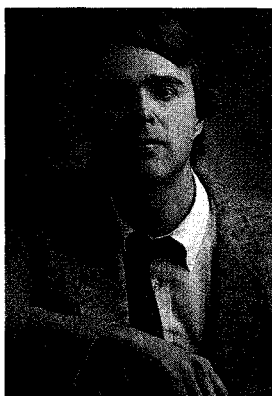


77 NORTH WASHINGTON STREET

I WAS the sort of kid," says Charles C. Mann, the author of this month's cover story on the future of intellectual property, "who has a new lifelong ambition every two months. At various times I wanted to become a paleontologist, a filmmaker, a historian, an astrophysicist, a theoretical ecologist, a professional balloonist, and an anthropologist." He pursued none of these paths to the end, and yet in his career as a writer he has walked down all of them. He says of his own niche in journalism, "It's like grad school, except that you always get to talk to the world's best people on the subject."

On assignment for *The Atlantic Monthly*, Mann has spoken with the world's best people on an extraordinarily diverse range of subjects. His first piece for the magazine, "How the Universe Works" (August, 1984), written with Robert P. Crease, was built around a profile of the physicist Sheldon Glashow. He has gone on to write major articles about the search for life on other planets (November, 1984), the economic ideas of Lester C. Thurow (January, 1990), the intricacies of endangered-species protection (January, 1992), and the dilemma posed by prostate-cancer testing (November, 1993). Mann's books, several of which

have grown out of *Atlantic* cover stories, include *The Second Creation: Makers of the Revolution in Twentieth-Century Physics* (1986), written with Robert P. Crease, and *Noah's Choice: The Future of Endangered Species* (1995), written with Mark L. Plummer. Mann also prepared the text for Peter



PETER MENZEL

Menzel's best-selling photographic project *Material World* (1994). He has been a contributing editor of this magazine since December of 1991.

Mann's 1990 *Atlantic* profile of New York Governor Mario Cuomo, who at the time was considered a leading candidate for the Democratic presidential nomination, is still remembered fondly by the magazine's staff for some of the fact-checking materials Mann provided. The quotations from Cuomo actually used in the article necessarily amounted to only a small fraction of many hours' worth of conversations at various offices, softball games, and political functions, interrupted by scores of phone calls about political and state business. The complete transcripts revealed a cinéma vérité Cuomo, maddening and formidable, and passed quickly up and down the corridors. Cuomo never had the chance to install a secret Oval Office taping system. Too bad. —THE EDITORS

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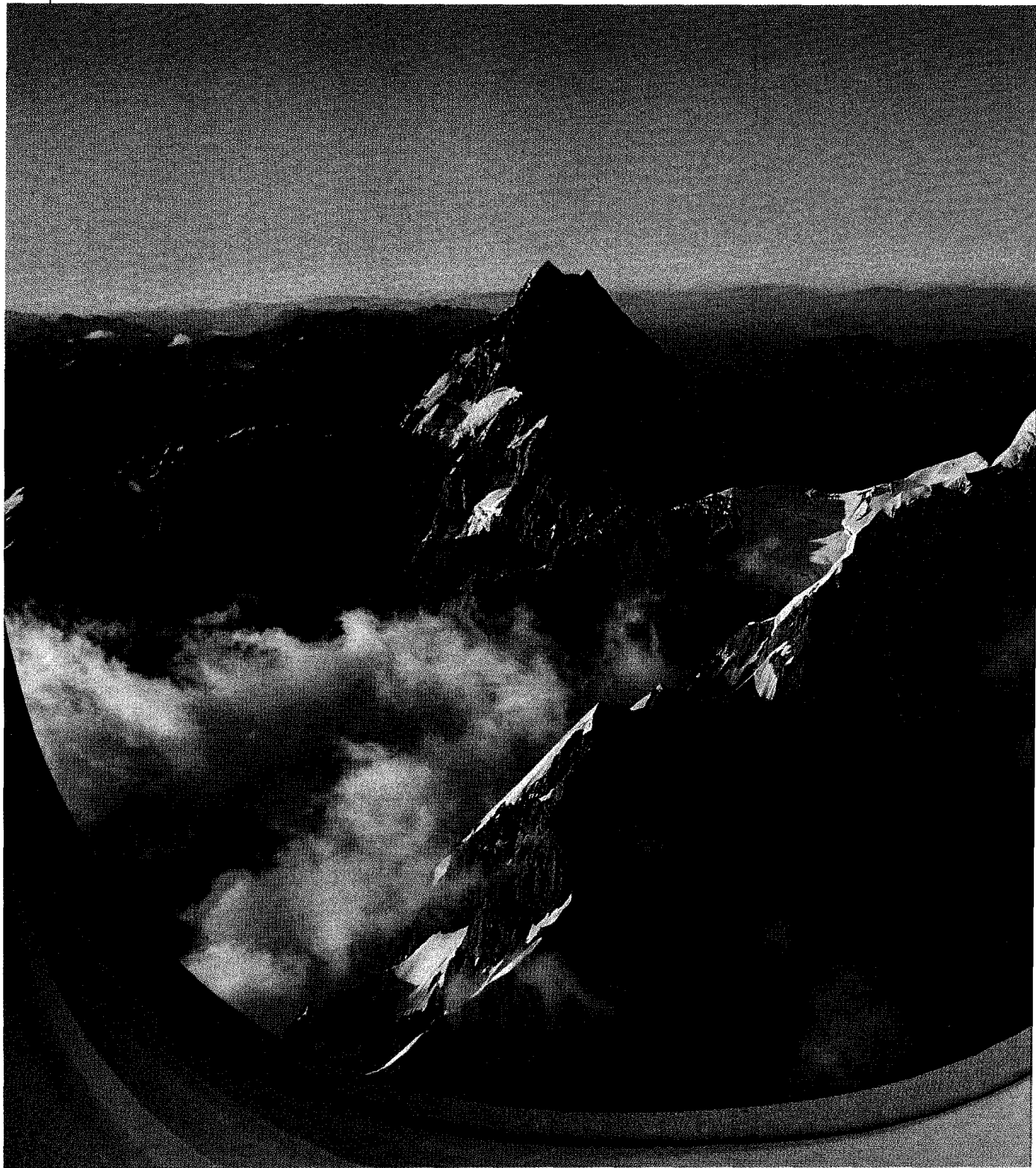
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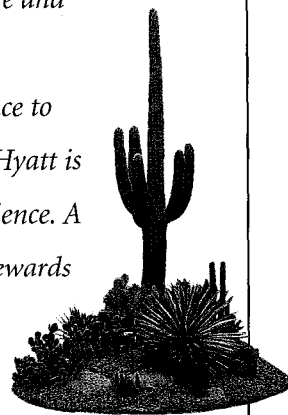


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LETTERS

Southern Captivity

Christopher Caldwell claims in "The Southern Captivity of the GOP" (June *Atlantic*) that "the Republicans would like to think that Americans are the dupes of a lecherous Arkansas sleaze-ball, just as the Democrats in the 1980s saw voters as gulled by a senile B-movie warmonger." Take away the pejorative language, however, and both parties are basically right.

In a two-party system, building a party base is essentially a zero-sum game; one can't attract one constituency without repelling another. This explains why the parties have exchanged geographical bases in the twentieth century and why each can count on about 40 percent of the national vote. The swing voters needed to win in the Electoral College are persuaded neither by ideology nor by interest but by a candidate's personal qualities of leadership—qualities that inspire trust and confidence and make Americans feel good about themselves and their country. If the candidate can attract voters from the other party (Reagan's "Reagan Democrats" and Clinton's "soccer moms"), so much the better.

In short, swing voters respond to charisma. The losing candidates in the past four presidential elections had about a tablespoon of charisma among them. Strategists and donors for both parties should never forget this, and should always choose leadership abilities over litmus tests.

Fred L. Wehling
Albuquerque, N. Mex.

Christopher Caldwell's analysis of southern influence on the Republican Party is trenchant. His focus on the presidency, however, causes him to overlook the successes of Republican governors at the polls and in "reinventing" their states. Governors John Rowland, of Connecticut; Terry Branstad, of Iowa; John

Engler, of Michigan; George Pataki, of New York; George Voinovich, of Ohio; Tom Ridge, of Pennsylvania; and Tommy Thompson, of Wisconsin, are all Catholics, not southern Protestants, and represent a new diversity in the Grand Old Party.

With an old balanced ticket or new diversity (for example, Elizabeth Dole and George Voinovich), the Republicans could be very much in the presidential game in 2000.

Cedric B. Cowing
Honolulu, Hawaii

One of the most discouraging, but not surprising, results of the southernization of the Republican Party has been the meager progress of female Republican membership in the U.S. House of Representatives. Of the forty-one Republican representatives from the Old South (excluding Florida), only one, Sue Myrick, of North Carolina, is female. That means that the Republican Old South in the House is 2.4 percent female, whereas female membership is 13.7 percent overall. Altogether there are now sixteen Republican women and thirty-nine Democratic women in the House. During the past several decades Democratic female growth has been about three times that of Republican female growth in the House. Most of the new Democratic congressional women have come from states such as California, New York, Florida, and Michigan, and from among minorities throughout the nation. Whereas the Republicans now have three female senators (two from Maine and one from Texas), the Democrats have six.

Speaker Newt Gingrich has elevated Republican congresswomen such as Jennifer Dunn, of Washington, and Deborah Pryce, of Ohio, to leadership roles, and has given important committee assignments to other female representatives, but the overall increase in numbers of Republican women running for and

Sarah McLachlan. Rehearsal for the Lilith Fair in Vancouver, 1998. Photo: ©Jim Marshall™



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winning congressional seats has been insignificant. One of the major problems facing Republican women running for the House who are pro-choice has been repeated attacks from far-right religious groups in both primaries and general elections.

The greater the degree to which the Republican Party becomes the party of the Old South, the less chance there is that women in the party will see an increase in empowerment.

George A. Dean
Southport, Conn.

Age of Falsification

Sadly, Kenneth Brower's article "Photography in the Age of Falsification" (May *Atlantic*) contains perfect examples of why photographers' digital alterations of photographs are not merely extensions of the older practices of dodging and burning but active falsifications. The digitizers take the position that their alterations create no significant changes to the 'factuality' of the pictures they present, but fail to acknowledge the limits of their own knowledge and thus of their understanding of the significance of their changes.

Brower quotes Joseph Holmes as saying, "If you have a picture of detailed vegetation, and it looks better backwards, you should reverse it. Because it doesn't make any difference to the natural history of the place. There's no left-rightness about the way the plants grow that would be misleading to a botanist. There's absolutely no reportage element in there of any value."

Holmes is entirely wrong in that opinion. Many plants have handedness in the way they grow, especially those that incorporate helical forms. For example, honeysuckle stems twine around one another to the left. (See the discussion in Martin Gardner's *The Ambidextrous Universe*, Scribner, 1979.) A flopped picture of a honeysuckle is just as false to the natural world as a leopard on Saturn, although fewer among us would recognize its falsity.

Wolfe's artificially multiplied zebras are misleading as well, because there are definite mathematical patterns discernible in herding movements. Wolfe

may be unaware of this area of applied topology, but he is not entitled to assume that herding is merely random and can therefore be manipulated without changing any significant information contained in the photograph.

Shayna B. Kravetz
Toronto, Ontario

Art Wolfe's beautiful book *Migrations* ill deserves the vituperous condemnation by Kenneth Brower. Let the reader, not Brower, decide if Wolfe's defense does or does not wash. The introduction to *Migrations* reads, "Art, as well as conservation, is a goal of this book. . . . Since this is an art book and not a treatise on natural history, I find the use of digitalization perfectly acceptable, and in a small percentage of the photographs I have enhanced the patterns of animals much as a painter would do on canvas."

Brower's narrow view of nature photography as strictly a form of witness is distressing to photographers who strive to make nature photography acceptable as fine art. Art photographers have felt obligated to themselves and the public to produce the best, most artistic images they can, and a tool in that process is darkroom or digital manipulation. Most of us believe that there is nothing wrong with this so long as the result does not misrepresent the natural history of the subject or its environment. In nature photography there is room for both photojournalism and art, and the two camps should be able to coexist with mutual respect and without the pejorative phraseology that litters Brower's article.

Art Wolfe's beautiful images and writing in his many books and prints have sensitized a generation to the beauty of nature and the need to preserve it. For that he deserves our thanks.

Charles Sleicher
Seattle, Wash.

Kenneth Brower replies:

I am happy to receive confirmation from Shayna Kravetz that the suspicion I voiced in my article—that handedness might exist in plants—is not unfounded. And I share Charles Sleicher's esteem for his Seattle neighbor, Art Wolfe, one of our greatest wildlife photographers. But I would point out to Mr. Sleicher that he has a philosophical bone to pick with Wolfe as well as with me. "We've com-

pletely backed away from doing digital illustration that can look real," Wolfe says in my article. The "enhancement" by which Wolfe multiplied a herd of fifteen elephants to one of fifty-four is quite an enhancement. This kind of inflation is indeed a misrepresentation of natural history. It is clear to me that Wolfe wishes he had never started fathering elephants digitally, and I hope Mr. Sleicher steers away from this himself.

A Special Moment

Bill McKibben ("A Special Moment in History," May *Atlantic*) is an articulate spokesman for the "This time it will happen!" crowd. Recognizing that previous apocalyptic doomsayers (Malthus is the best known) have been wrong, he tosses a wide array of dangers at his readers in order to persuade us that this time catastrophe will indeed occur. Thus it is worth taking a few moments to consider one of the most prominent of his scenarios: global warming.

The author asserts, "We are heating up the planet—substantially" and "The planet has already heated up by a degree or more." However, the data used by the United Nations' Intergovernmental Panel on Climate Change to imply a one-degree rise over the past century come from surface measurements, many of which were recorded at monitoring sites near urban centers. Such data have been seriously discredited by others because of the "urban heat-island" effect—an artificial appearance of warming as such centers expand and become warmer over the decades. Also, measurements from weather balloons and satellites have shown a slight decline in climate temperature since 1979 (when they were first used), whereas surface measurements since 1979 show a significant rise, further discrediting the conclusion drawn from surface measurements. The author goes on to forecast temperature increases of up to 6.3°—truly a catastrophic scenario. But such forecasts are based on computer models that do not adequately take into account the cooling effects of clouds and are unable satisfactorily to model the known portion of past behavior of the earth's temperature.

Alarmists also like to assert widespread scientific support for the theory of

global warming. McKibben does this by referring to a UN panel's "2,000 scientists, from every corner of the globe" who claim that "'the balance of evidence suggests that there is a discernible human influence on global climate.'" This is intended to impress the reader. But another 15,000 scientists, two thirds of whom hold advanced degrees in the natural sciences, have signed a petition stating that "no convincing scientific evidence" exists that the release by human beings of carbon dioxide, methane, or other greenhouse gases is causing or will cause a catastrophic heating of the earth's atmosphere and a disruption of its climate. Among the signers are Fred Singer, a designer of climate-measuring instruments and the first director of the National Weather Satellite Service, and Frederick Seitz, a physicist and a past president of the National Academy of Sciences, who has served as the chairman of the U.S. delegation to the UN Committee on Science and Technology for Development.

I am pleased that people are concerned about the earth's climate. But discussions of global warming should focus on

the facts, rather than on scaremongering designed to increase the reader's adrenaline flow.

Joel R. Weiss
Winnetka, Ill.

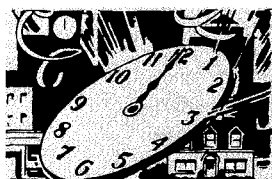
In his moving elegy for a planet under siege, Bill McKibben is absolutely correct in suggesting that we focus on the carbon-dioxide problem in the decades ahead. But I think his pessimism and eco-Weltschmerz is unwarranted when he dismisses the economic viability of hydrogen ("Changing basic fuels—to hydrogen, say—would be even more expensive. It's not like running out of white wine and switching to red").

Yes, hydrogen would be more expensive, but not a lot; it would still be less expensive than the fuels that the Europeans and the Japanese have been paying for—and thriving on—for decades. Recent estimates project that zero-emitting hydrogen can be produced economically from fossil fuels in the near future (water-splitting is an option further down the road). The "by-product" carbon dioxide, if you want to

call it that, can be safely disposed of, away from atmospheric harm, in deep strata or exhausted gas fields (Norway is already practicing CO₂ injection industrially as part of offshore oil production).

The energy costs of this hydrogen would be roughly twice that of (currently perversely cheap) U.S. gasoline. But these higher fuel costs would be offset by the almost equally higher efficiencies of fuel cells, which many seasoned industry people expect will move to commercial reality within six or seven years.

This scenario represents the conviction of some influential, forward-looking energy strategists. As I report in a book on hydrogen and fuel-cell technologies that I am currently completing, it is the view of Robert H. Williams, a MacArthur Prize fellow, a senior research scientist at Princeton University's Center for Energy and Environmental Studies, and an important international voice in the ongoing debate about environmental issues and clean energy. In a 1996 paper, for example, Williams said that hydrogen made from hydrocarbon fuels makes eminent sense for future



Short-term fever?

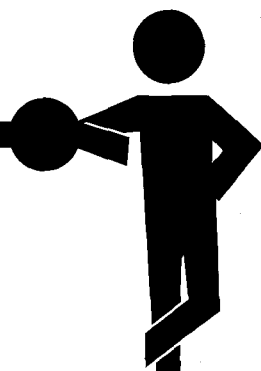
by B. Grady

Oh you've got it alright. Between the sandwich you downed on the freeway to make that meeting on the opposite side of the city, and the mad dash home to catch enough of Tommy's soccer game so as not to be late for Bridget's ballet recital, you're knee-deep in it. Welcome to the short-term world.

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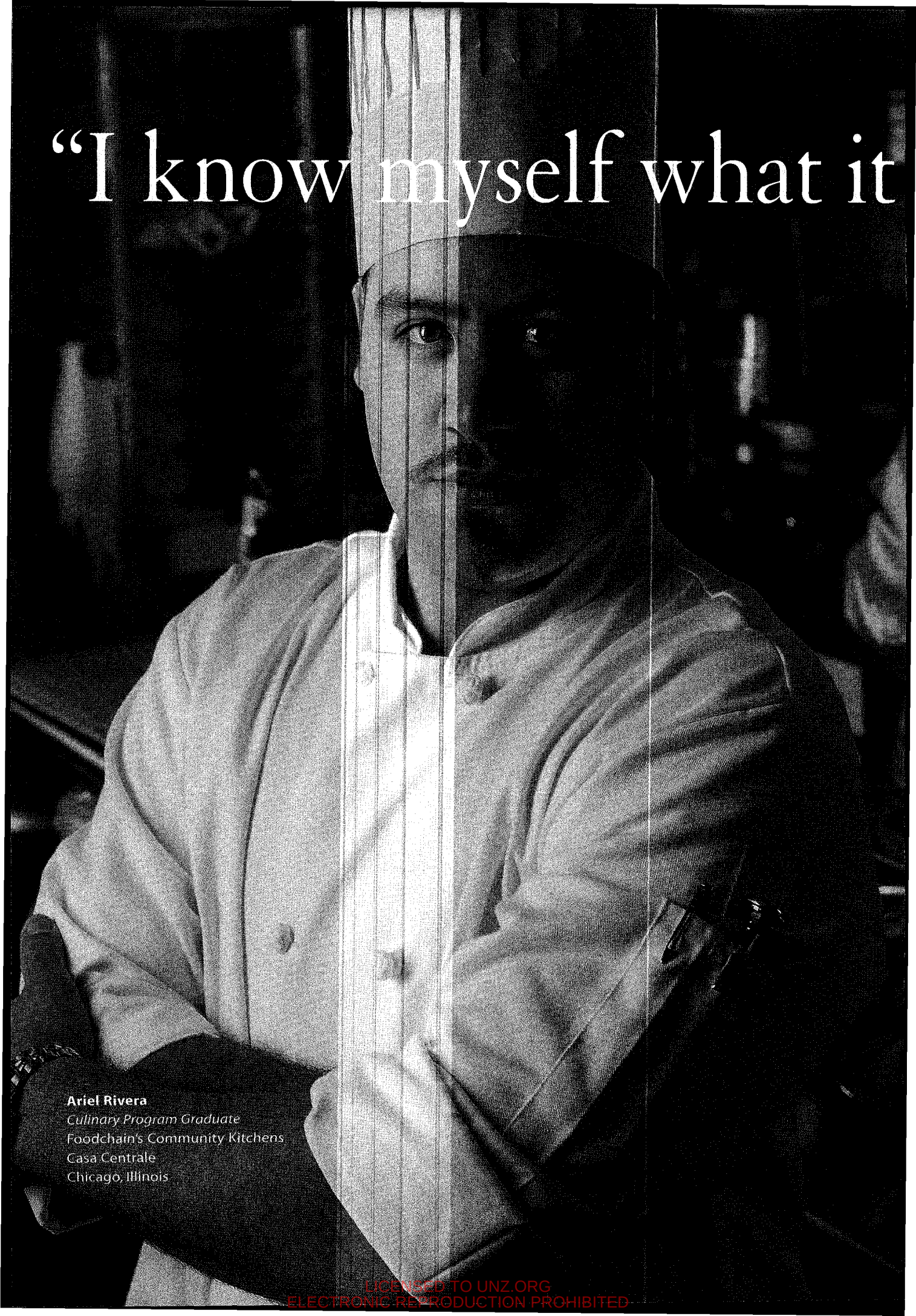
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Culinary Program Graduate
Foodchain's Community Kitchens
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means to be hungry...

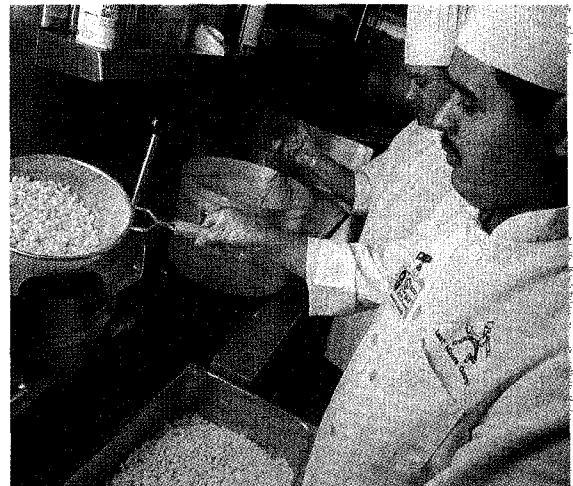
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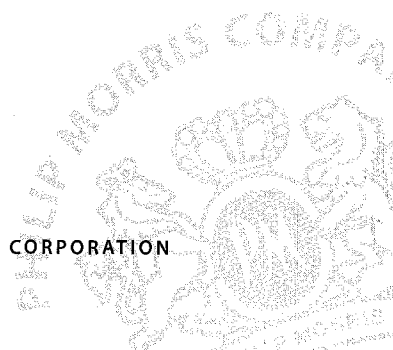
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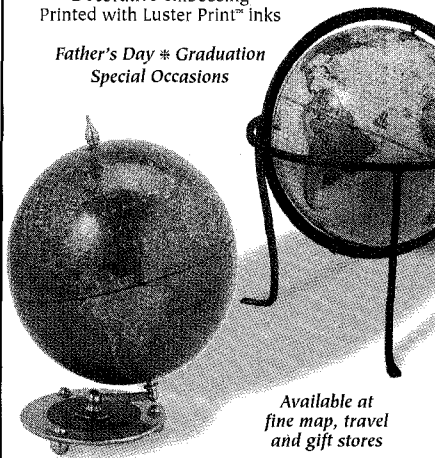
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large-scale applications, mainly because this will be the least costly production method—for now, at least.

According to a 1995 paper by Williams and three Princeton colleagues, biomass-derived methanol and hydrogen would be roughly competitive with today's diesel and gasoline fuels—which are processed from crude oil imported from sources that look increasingly insecure—and also offer zero or near-zero local air pollution and “very low levels of life-cycle CO₂ emissions, if the biomass feedstock is grown sustainably.” The authors acknowledge that biomass-derived hydrogen and methanol won't be able to compete with natural-gas-based hydrogen and methanol in the near term, but “natural gas prices are expected to rise substantially over the next decade or so,” making biomass nearly competitive by 2010.

Peter Hoffmann
Rhinecliff, N.Y.

Bill McKibben fails to discuss the expected impact on the world economy of a dramatic reduction in fossil-fuel use and control of other emissions. Simply put, large-scale deployment of alternative energy resources is not ready for prime time. All these resources face high costs, limited availability, or questionable reliability. The investment required to retire existing fossil-fueled equipment rapidly would divert resources from other needs around the world, and would be likely to lock us into using inferior technologies for some time. We have already seen solar and wind technologies fail when we tried to accelerate their adoption during the energy crisis of the 1970s. Controlling other gas emissions, particularly methane, would have serious repercussions in the developing world, since many of these emission sources arise from subsistence activities such as rice and dairy farming.

These costs not only would be significant but also would probably hurt the poorest the most. The wealthy can afford to pay higher prices for energy and commodities, but the poor would be forced to cut back on basic necessities. Political turmoil in the developing world would be likely to increase. Asking the industrialized world to reduce its consumption, help its poor, and bail out the developing nations all at once is politically

naive. McKibben's proposal would be doomed from the outset.

McKibben believes that he is proposing a risk-averse strategy, but he fails to understand fully the scientific, economic, and political issues at the heart of the debate. He and his compatriots should be better schooled in the causes of climate change and the consequences of appropriate responses.

Richard McCann
Davis, Calif.

The Environmental Protection Agency data cited by Bill McKibben should not be misinterpreted as cause for celebration. Atmospheric lead levels may have declined by 78 percent since 1986, but that lead didn't just disappear: it fell out of our atmosphere into our water and onto our land, and into and onto us!

Bill Green, a chemistry professor at Miami University, in Ohio, reported in 1995 that there has been a fifteenfold increase in the lead content of Pacific coral shells over the past hundred years, and that the lead content of Antarctic snows is four times what it was prior to the Industrial Revolution.

We have hardly begun to feel the effects of this “fallout,” but my guess is that we will, and they won't be pretty.

Keith Cochnour
Columbus, Ohio

Bill McKibben replies:

Joel Weiss compares the conclusions of a UN panel that spent many years studying this issue with those of some 15,000 signers of an open letter on the Internet—a list of signatories that includes the Spice Girls. The attack on global-warming science, which is funded mostly by the fossil-fuel industry, becomes shriller all the time; it has to, because the facts become clearer. Last year was the warmest on record, and as data for the first five months of this year now make clear, 1998 is even warmer.

I hope that Peter Hoffmann's optimism that we are ready to switch to hydrogen is warranted. My point is that even in the best-case scenario it will be an expensive and time-consuming switch, because we have an enormous fossil-fuel infrastructure with hundreds of billions of dollars invested in its operation. We can switch to renewable energies, and eventually we will because we must, but I think it is fol-

ly to assume that the transition will be easy or swift, or by itself enough to deal with the problems we face. I think we also need to worry about levels of consumption and about population size.

That said, I must disagree with Richard McCann about the impossibility of making such a transition. The development of solar and wind technologies stalled in large part because we were willing to provide huge subsidies in order to keep the price of oil so low. Gasoline currently costs about one sixth what bottled water costs. Raising the price of petroleum would be the most effective way to spur innovation. If we had already run out of oil, we would by now have figured out other, less-dangerous ways to move ourselves, heat our homes, and conduct our lives.

Resisting Kyoto

Ross Gelbspan's article "A Good Climate for Investment" (June *Atlantic*) is the latest in a series of *Atlantic* pieces making the case that a widespread public-policy effort is needed to combat global warming and other man-made damage to the earth's environment. Like many of the other pieces, however, it is hamstrung by logical flaws. These flaws undermine the premise on which the entire article depends: that the planet's environment is so threatened that severe corrective steps are required.

For example, in trying to make the case that corrective measures would actually provide great economic benefit, Gelbspan points to rising insurance losses from extreme weather events (\$2 billion a year in the 1980s, \$12 billion a year in the 1990s). He does not, however, provide any support for the unstated premise—that extreme weather has increased, because of humanity's damage to the environment. Have extreme weather events really increased during the past two decades?

The rhetoric is equally flawed in his assertion that the all-powerful "fossil-fuel" lobby has successfully (and deviously) manipulated public opinion toward environmental unfriendliness. He offers the example of a coal- and utility-industry campaign to discredit global-warming predictions, and then makes the following statement:

The effectiveness of the campaign can be seen in the results of two *Newsweek* polls, conducted in 1991 and 1996. In 1991, 35 percent of the people polled said they believed that global warming was a serious problem. By 1996 the number had dropped to 22 percent.

This is a plain *post hoc, ergo propter hoc* fallacy: the fact that public opinion dropped after the campaign was launched does not necessarily mean that the campaign was responsible—particularly considering that there are numerous other plausible explanations for the shift (for example, the public is growing numb from too many dire predictions).

The next piece of evidence offered by Gelbspan, far from shoring up his point, only undercuts it: "Last summer [testimony by 'greenhouse skeptics'] led as well to a 95–0 vote in the Senate on a resolution . . . against ratification of the Kyoto Protocol." Was testimony by industry-funded shills responsible by itself for persuading *every single senator*, liberal and conservative, to reject ratification—or might there actually be some merit to the skeptical position?

In his opening paragraph Gelbspan states, "Only in the United States is anyone still seriously debating whether the earth is undergoing a steady, and threatening, warming." Some evidence to support this broad generalization would be nice. It contradicts my own experience traveling abroad and discussing such issues with foreign citizens, who are generally concerned with ecology but rather undecided about the severity of environmental threats. Gelbspan's general stance seems to be as follows: the ecology of the earth is in a state of man-made crisis; we must take drastic action now; every rational person believes this; and anyone who says otherwise is in the pocket of the greedy oil and energy combines. Is this really the proper perspective from which to approach an issue that affects every person living on the planet?

Robert F. Moss
Columbia, S.C.

I read with interest Ross Gelbspan's article on global climate change, and I feel compelled to correct a misstatement.

Gelbspan writes that the statement signed by 2,500 economists last year

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"endorsed the findings . . . that we could cut emissions by up to 30 percent with no negative economic impacts." The statement, however, which my organization, Redefining Progress, facilitated and circulated, and which was written by the esteemed group of Kenneth Arrow, Dale Jorgenson, William Nordhaus, Paul Krugman, and Robert Solow, says something slightly different. It does say, "Economic studies have found that there are many potential policies to reduce greenhouse-gas emissions [which] . . . may in fact improve U.S. productivity in the longer run," but it does not endorse any particular finding. Moreover, the statement does one important thing that Gelbspan's article does not: it addresses *how* emissions can best be reduced at low economic cost—or with overall economic gain.

The statement endorses market policies. It reads, in part, "The United States and other nations can most efficiently implement their climate policies through market mechanisms, such as carbon taxes or the auction of emission permits. The revenues generated from such poli-

cies can effectively be used to reduce the deficit or to lower existing taxes." In fact, a growing literature suggests that such a tax shift is the best way to reduce the economic cost of emission reductions, and it would actually be a beneficial change for fast-growing or labor-intensive business sectors such as high technology, business services, and retail trade. Redefining Progress is working to broaden the research base behind the tax-shift concept.

M. Jeff Hamond
San Francisco, Calif.

I disagree with the following sentence in Ross Gelbspan's article: "With the exception of natural gas, renewable energy sources do not involve the extractive technologies required by fossil fuels." Natural gas, though relatively clean, is not a renewable energy source. It is a hydrocarbon of finite supply, composed mainly of methane, and produces carbon dioxide when burned, just like gasoline, coal, or wood.

Richard Drill
Arcata, Calif.

Ross Gelbspan replies:

I regret Robert Moss's reluctance to engage the central thesis of my essay: that a global energy transition would bring about a historically unprecedented expansion of wealth in the global economy. My proposed remedy, which Mr. Moss characterizes as "severe," would, to the contrary, create millions of jobs around the world. It would enable all the world's economies to grow without regard to the limits of the atmosphere. And it would narrow the widening gap between the world's wealthiest and poorest countries.

As for my assertions about the urgency and magnitude of the climate crisis, they are drawn from the work of the Intergovernmental Panel on Climate Change (IPCC), a United Nations coalition of more than 2,500 scientists from more than a hundred countries. The panel's scientific data was not challenged by even one of the governments that participated in the climate negotiations in Kyoto.

As to the projections of the IPCC, they are supported by several important findings about the influence of human-



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generated greenhouse gases on the climate reported by researchers at the National Climatic Data Center. Those findings have documented newly unstable elements in our climate, including altered rainfall and drought patterns, a rise in nighttime low temperatures more rapid than the rise in daytime high temperatures (a signature of greenhouse warming), and the fact that we are receiving significantly more of our rain and snow in severe, intense downpours than we did several decades ago.

M. Jeff Hamond is right in calling attention to my faulty use of the word "endorse." Although the 2,500 economists coordinated by Redefining Progress concluded basically that we can reduce emissions at a net gain to our economic productivity, the figure of 30 percent comes from the IPCC's Working Group on Economics, some of whose members also endorsed the economists' statement.

Finally, my apologies to Richard Drill. He is absolutely correct in taking issue with my use of "renewable" to describe natural gas. Although natural gas, which has less carbon content than

coal or oil, is generally regarded as a "bridge" fuel in any energy transition, it most certainly is not renewable. I regret the error.

Advice & Consent

Your correspondents (Letters, June *Atlantic*) who found Peter Schrag's analysis of the California initiative process ("California, Here We Come," March *Atlantic*) overly hostile should avail themselves of the official California Voter Information Guide for the primaries on June 2 of this year. There were nine complex initiatives on the ballot. They occupied twelve pages of double-column text at the back of the guide. Thirty more pages were devoted to summaries, "Analysis by the Legislative Analyst," arguments in favor, arguments against, and rebuttals to each of these.

If one had the time to plough through this material and make sense of it, all might be well, but unfortunately the initiatives themselves are often badly worded, and the accompanying argu-

ments consist largely of hectoring obfuscations by highly partisan advocates with little interest in reasoned discussion. (The guide does not reveal how the drafters of arguments are selected.)

As your correspondent Grant Cogswell, of Seattle, pointed out, the initiative process can be used to good effect, but in California it is more frequently abused.

Frank Rettenberg
San Rafael, Calif.

At the end of "'Discovering' Young Poets" (June *Atlantic*), Peter Davison muses about the current value of "all male" poet elders "discover[ing] the young," who he mentions are "more than one third female." I was reminded of the May announcement of *The Atlantic's* Student Writers' Competition winners, three fourths of whom, I noted, were female. Perhaps the sap and wit of late-twentieth-century male talent is being drained by the ever-rising cost-versus-benefit ratio of a liberal-arts education.

Daniel S. Moore
Portland, Ore.

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Demographics

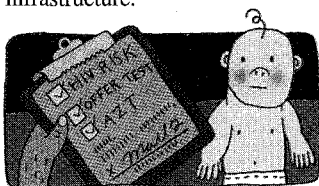
September is the busiest month of the year for military reunions, largely because hotel rooms are widely available at off-season rates (many veterans are retired and have limited incomes) and yet the weather is still generally clement. Such gatherings, however, appear to be a fading tradition: whereas there were some 6,000 across the country in 1992, only about half that number are expected this year. The aging and deaths of veterans—particularly veterans of the Second World War, who hold the great majority of reunions—and the modest U.S. military involvement in armed conflicts of recent decades are the chief reasons for the decline. In addition, several significant anniversaries—for example, the 50th anniversary of the end of the Second World War—have now passed. Finally, the largest group of living veterans—the more than 8 million veterans of the Vietnam War—are markedly less enthusiastic about reunions than other veterans have been, presumably because of negative experiences both during combat and after their return home.

Environment

September 1: The federal Clean Fuel Fleet Program (CFFP) begins today, as 1999 vehicles start rolling off assembly lines. Under amendments to the 1990 Clean Air Act some of the metropolitan areas that have been classified as “serious,” “severe,” or “extreme” in terms of ozone pollution must require, with some exceptions,



operators of fleets of 10 or more vehicles to include a set percentage (initially, 30 percent for light-duty vehicles and 50 percent for heavy-duty vehicles) of “clean-fuel vehicles” in their annual purchases over the next few years. Manufacturers may use any fuel that enables the vehicles to meet stringent tailpipe-emissions standards. Among the areas affected are Atlanta, Denver-Boulder, and Washington, D.C. The Environmental Protection Agency hopes that the CFFP will encourage the development of a clean-fuel infrastructure.



Health & Safety

This month the Institute of Medicine will release the results of a two-year study of states’ efforts to reduce HIV transmission from mothers to newborns. The study was required under 1996 legislation that also requires the Secretary of Health and Human Services to determine this fall whether the testing of newborns of untested mothers, along with follow-up measures, has become routine. If so, in order to receive federal funding in 2000, states will have to meet one of the following general conditions: a reduction in new pediatric AIDS cases from perinatal transmission to half the number recorded in 1993, a voluntary-prenatal-testing rate of at least 95 percent, or the implementation of mandatory testing for all babies born to untested mothers. If not, paradoxically, funding will not be contingent on such conditions. Some argue that mandatory testing could drive women from the health-care system. However, there is no evidence that this has happened in New York, which has a successful mandatory newborn-testing program.

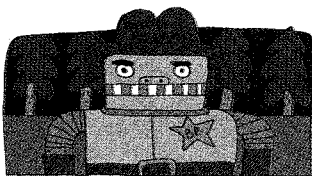


Arts & Letters

September 5–13: Puccini’s opera *Turandot* will be performed for the first time in the locale in which it is set—Beijing’s Forbidden City. The opera, about a Chinese princess and the tests she devises for her suitors, will involve more than 1,000 singers and musicians and be conducted by Zubin Mehta. Its Beijing premiere is the result of years of work by the organization Opera on Original Site, known for the 1987 production of *Aida* in Luxor, Egypt. The opera and related festivities are expected to contribute at least \$100 million to the local economy. Because even the cheapest regular ticket, at \$150, is several times the average monthly salary in China, two performances will be given for Beijing residents at drastically reduced prices.

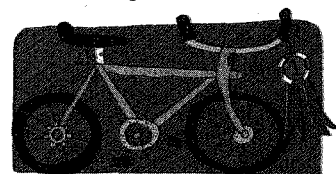
Government

September 30: Unless a request for an extension is granted, the U.S. Immigration and Naturalization Service will begin using an automated system to register all non-citizens entering and leaving the country. The measure, mandated by the 1996 immigration-reform act, is intended to crack down on drug smugglers and those who overstay their visas. Opponents argue that the provision will create undue delays, especially at the Canadian border (Canadians have long been exempted from having to present identification), and thereby discourage tourists from entering the United States. The INS has asked for more time to address this concern.



The Skies

September 6: Venus lies close to Mercury and the bright star Regulus in the east an hour before sunrise. Binoculars may be needed to view the two latter bodies. This morning brings the Full Moon, also known this month as the Cool Moon or the Harvest Moon. It will be dimmed by a penumbral eclipse, best seen in the central and western states; the eclipse’s midpoint will be at 6:10 A.M. CDT. 7: The Moon passes close to Jupiter, which will be high and bright in the night sky all month and is at opposition on the 15th. 23: At 1:38 A.M. EDT, the Autumnal Equinox.



100 Years Ago

W. J. McGee, writing in the September, 1898, issue of *The Atlantic Monthly*: “A typical American device is the bicycle. Invented in France, it long remained a toy or a vain luxury. Redevised in this country, it inspired inventors and captivated manufacturers, and native genius made it a practical machine for the multitude; now its users number millions. . . . Typical, too, is the bicycle in its effect on national character. It first aroused invention, next stimulated commerce, and then developed individuality, judgment, and prompt decision on the part of its users. . . . Better than other results is this: that the bicycle has broken the barrier of pernicious differentiation of the sexes and rent the bonds of fashion, and is daily impressing Spartan strength and grace, and more than Spartan intelligence, on the mothers of coming generations. So, weighed by its effect on body and mind as well as on material progress, this device must be classed as one of the world’s great inventions.”



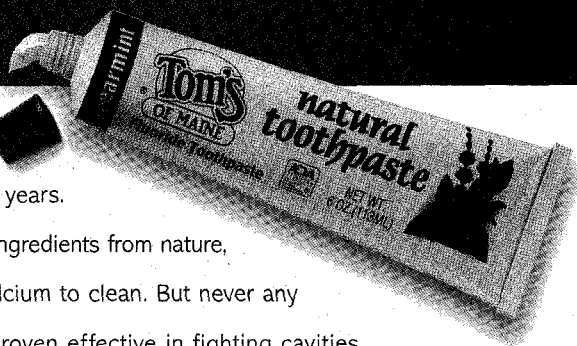
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The Time Has Come

Thinking about the logical next step in the funeral industry's evolution

WHEN Jessica Mitford died, in 1996, at the age of seventy-eight, a rumor went around that she had left behind an unfinished sequel to her 1963 nonfiction classic *The American Way of Death*, an acerbic study of American funerary practices at mid-century. It was perhaps Mitford more than anyone else who established in popular culture the images of the soothing, mercantilist funeral director and the vast commercial enterprise, by turns pathetic, futile, and grand, of which the funeral director is the embodiment—images that may be somewhat short of the truth even as they are now effectively beyond parody. Lending substance to the rumor of a sequel was the companion rumor of a persuasively Mitfordian title: *Death Warmed Over*.

Alas, the rumor turned out to be mostly just that—no fresh work awaited publication. But with an eye to a new edition Mitford had undertaken a certain amount of revision, and the result, under the title *The American Way of Death Revisited*, has just been published.

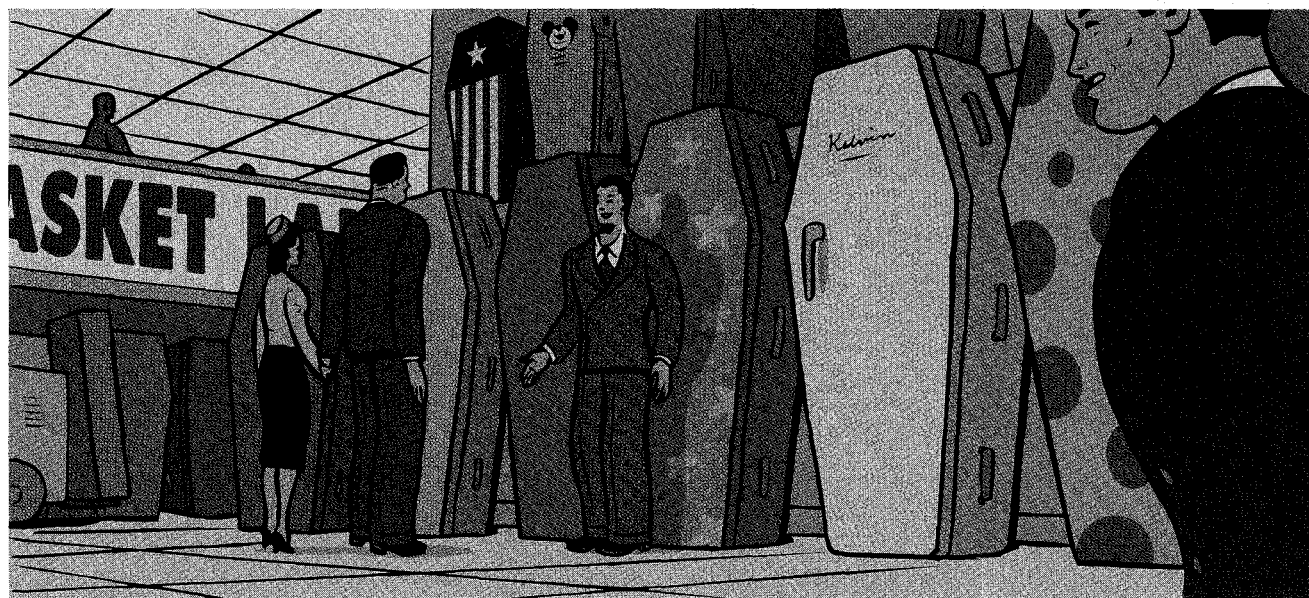
A revised edition was long overdue, for two reasons. The first is that owing in some measure to the influence of *The American Way of Death*, funeral customs in America have during the past three decades become far more personalized and

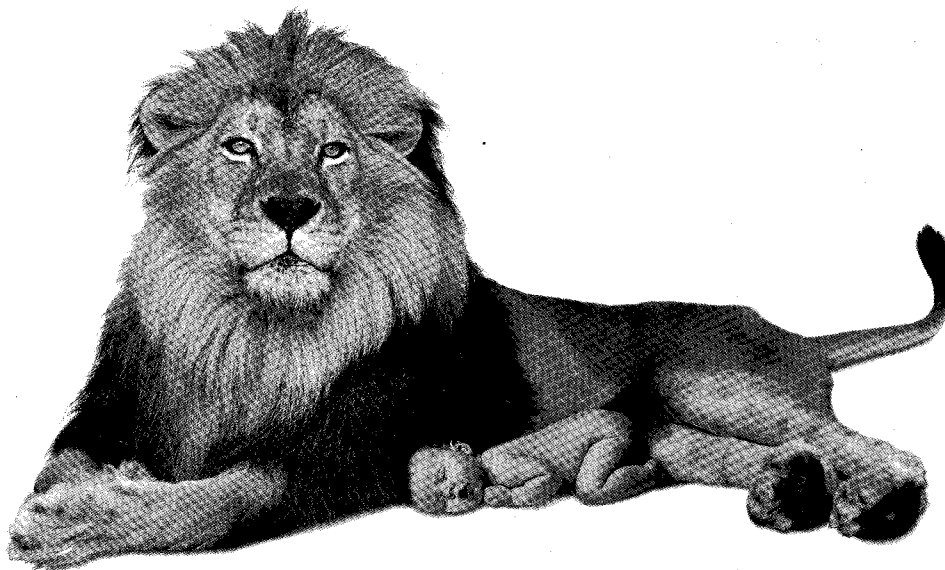
freewheeling than ever before. Communities around the country have loosened regulations governing attendance upon the dead, allowing families rather than funeral homes to arrange for the ultimate disposition of remains. In some places embalming services have been organized into collectives, on the model of food cooperatives. A brochure that recently came to my house suggests that a thriving mail-order business in coffins now exists. The choices I was offered by a company called

Casket Royale ranged from the understated and inexpensive Canterbury model to the costly but elegant Buckingham; a box on the

order form could be checked for “24 Hour Rush Delivery.” Though still the destiny of a majority, burial is the option desired by fewer and fewer Americans these days. A company called Relict Memorials, in Mill Valley, California, specializes in turning cremated remains into customized granitelike slabs. Kits are available for swabbing and preserving samples of the departed’s DNA, and a company now exists to provide “perpetual care” for one’s Web site. A Kentucky bookbinder and printer, Timothy Hawley Books, offers a line of what it calls bibliocadavers—handsomely bound volumes whose blank or printed pages are created from a pulp containing the ashes of a loved one. The advent of bibliocadavers will, if nothing else,

by Cullen Murphy





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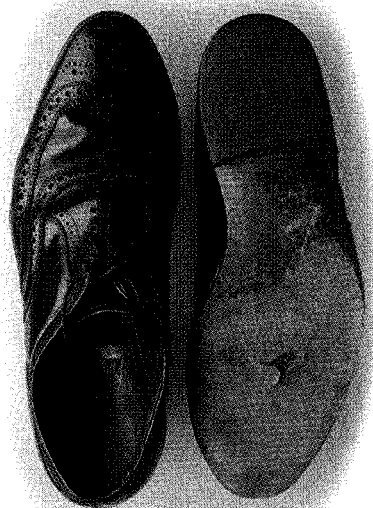
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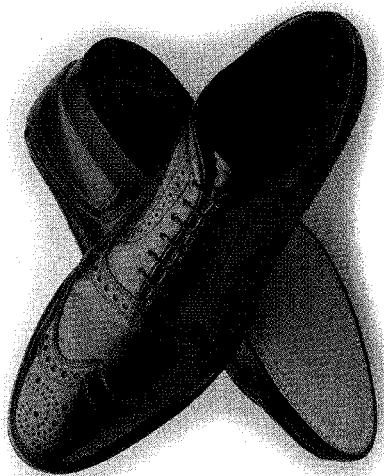
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add a new facet to the idea of a book's being remaindered.

A dawning recognition of expanded options is also evident in England, the land of Jessica Mitford's birth, where American funerary practices have been a subject of merriment (see Evelyn Waugh's mordant 1948 novel *The Loved One*) even as local custom verges on desuetude. Lamenting the fact that funerals in England are so often "miserable and disappointing" affairs, the National Funerals College, which operates training programs for undertakers, has issued a twenty-four-point Dead Citizens' Charter. Among the recommendations: that funeral homes reveal their prices in advance; that the clergy try to learn something about the people whose funerals they conduct; and that owners of crematoria be less peremptory as they rush each mourning party through "the slot" (the time period allotted before the conveyor belt must roll). One of the drafters of the Dead Citizens' Charter is also a co-editor of a new academic journal, *Mortality*, which, according to an inaugural editorial, was founded in part in response to "the variety of reform groups created to improve the social rituals" surrounding death. In the East London district of Walthamstow a "death-care supermarket" has opened its doors. The store, named Regale, whose employees are forbidden to wear black, sells everything from tombstones and garden trowels to coffins that can serve as bookcases or wine racks until needed for another purpose. "This," the store's owner told an English newspaper, "was an industry stuck in Victorian times."

■ ■ ■

Of course, in its economic rather more than in its aesthetic aspects the funeral industry is far from being stuck in Victorian times—which brings up the second reason why revision of the Mitford book was overdue.

To a degree that *The American Way of Death* did not anticipate, the funeral industry has become like any other, with corporate conglomerates swallowing up independent operators in a quest for streamlined efficiency, growing market share, and, as one funeral-industry analyst describes it, "an assured customer base." Those who follow the funeral industry point out that the very same demograph-

ic reality that gave us the Pepsi Generation in the 1960s and *thirtysomething* in the 1980s is about to usher in what has been called the Golden Era of Death. A single American company, Service Corporation International, of Houston, already owns some five percent (or 1,112) of the funeral homes in America. Service Corporation and other investor-owned chains are looking beyond our shores to the potential markets in Canada, England, Australia, and New Zealand. The funeral industry is also becoming vertically integrated to an increasing extent. Much as movie studios once owned theaters, the big funeral-industry companies have acquired not only mortuaries but also cemeteries and crematoria.

Some may look askance at such developments, desecrating a further breakdown of communal bonds. Others will see progress, and observe that in this age of market-driven restructuring and global free trade, registering objections to economic reality is about as useful as registering objections to photosynthesis or gravity.

In *The Loved One*, Evelyn Waugh created *The Dreamer*, the marketing visionary who built Whispering Glades memorial park, a lush California necropolis. I imagine that some new Dreamer has already begun thinking about the logical next step in the funeral industry's corporate evolution, which is to smooth out fluctuations in the all-important assured customer base. Truly long-range planners may look to parallels with the effective management of forestry resources (one can't just keep harvesting old growth; one has to plant tracts of saplings), but those more interested in near-term opportunity might consider a merger of the corporate death-care giants with elements of the rapidly reorganizing health-care industry.

Part health-insurance company, part health-management organization, part hospital, part hospice, part funeral home—such a company, perhaps called Service Corporation Permanente, would offer the kind of integrated management that could abolish bottlenecks and shortages at any stage of the production cycle. Of course, some resistance can be anticipated—for instance, over the legalization of mortician-assisted suicide. In its broad outline, however, this is surely an idea whose time, like yours, must come: ☛

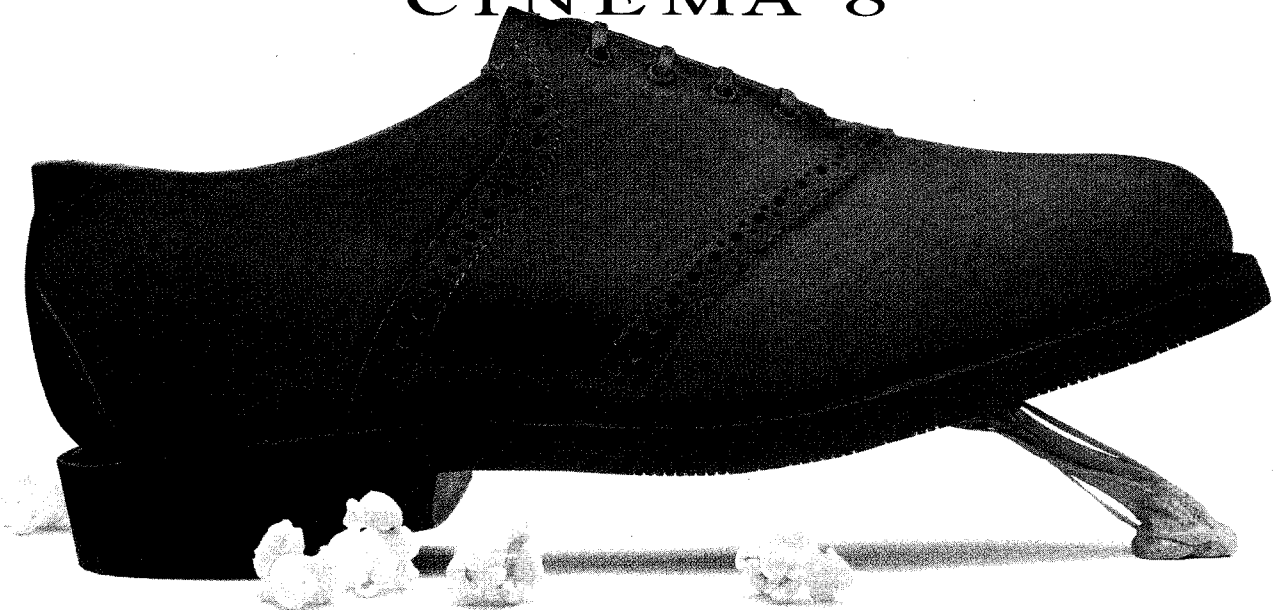
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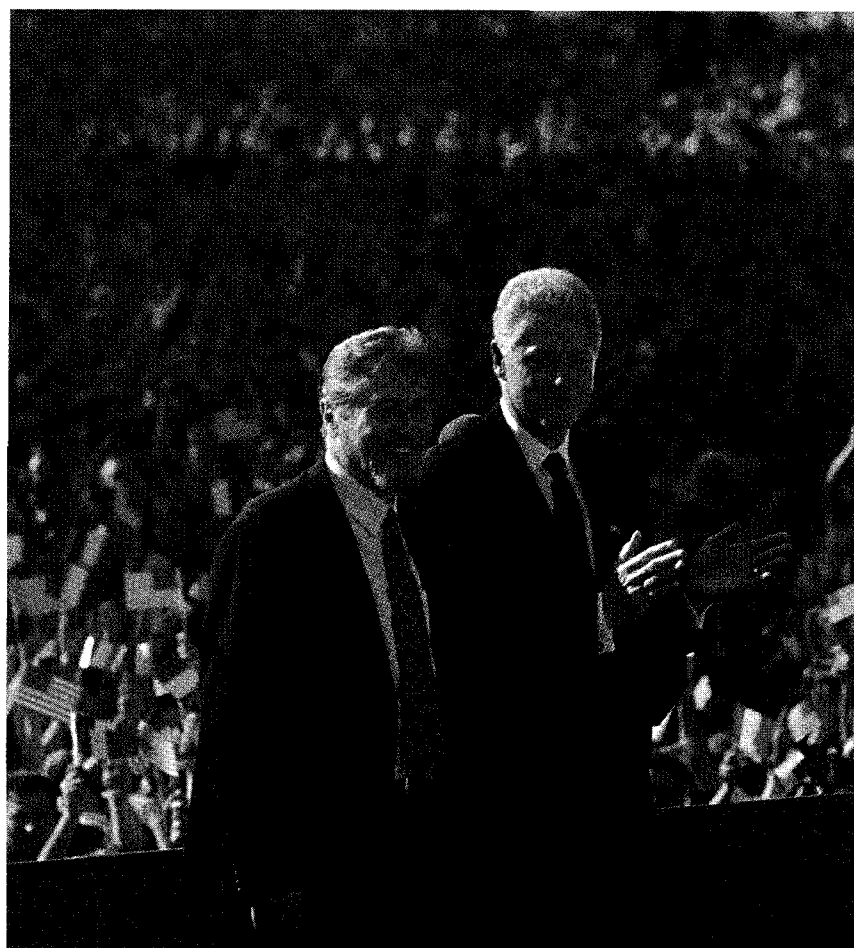
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The Fulcrum of Europe

Romania longs for the West, and the West needs Romania more than it knows

ONE of the largest and most passionate crowds President Bill Clinton has ever drawn was in Bucharest, where he stopped for an eight-hour visit on July 11 of last year. Though crowds of comparable size had greeted him in Ireland and Africa, the Romanian crowd was unique, because American officials did not expect it. In fact, they worried that the people who would come to greet Clinton on

by **Robert D. Kaplan**

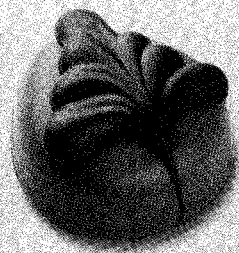
that frying-hot afternoon on dusty, treeless avenues in the Romanian capital would be too few, and even hostile. Only three days before, at a summit of the North Atlantic Treaty Organization in Madrid, the American-led alliance had decided not to admit Romania in the first wave of its post-Cold War expansion but to admit Romania's historical adversary, Hungary.

Yet hundreds of thousands of people

packed the wide boulevards from Piața Universității, where Clinton spoke, to Piața Romana, a mile away, shouting "NATO, NATO" in ecstasy—more people than at Clinton's stop the day before in Poland, a country that along with Hungary and the Czech Republic had just been accepted into NATO. In an interview last spring at the Cotroceni Palace, in Bucharest, the Romanian President, Emil Constantinescu, said about the strength of the showing for Clinton, "In World War Two, American planes bombed Romania [an ally of Nazi Germany through 1944]. Some American pilots were shot down. What did the villagers do? They hid the pilots." Constantinescu exclaimed, waving his hands, "It was absurd. The villagers protected at their own, grave risk the very men who had bombed them. This can't have happened very often in the history of aerial bombardment. Whatever America does, Romanians love you, because America represents the West, to which we know we belong. In the late 1940s, naive as it may sound to you, Romanians literally watched the skies, waiting for American planes to rescue them from Russian communism. When the Americans didn't come, we were brutally separated from the West for decades."

For Romanians, Constantinescu and others told me, Clinton's visit symbolized nothing less than the closing of that dark historical chapter, which continued beyond the fall of the Berlin Wall. Gorbachev-style Communists carried out the December 25, 1989, execution of the Stalinist dictator Nicolae Ceaușescu and his equally sadistic wife, Elena, who had reduced the caloric intake of many Romanians to less than what it had been during the First World War enemy occupation. Those Communists held power until 1996, when Constantinescu, a geology professor, was elected President. He rammed through historic reconciliation treaties with neighboring Hungary and Ukraine, began to liberalize the economy, and filled the senior staff positions of the Romanian military with young, English-speaking officers. He was Romania's first moral head of state since

Presidents Emil Constantinescu and Bill Clinton last year



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the corrupt and politically disastrous King Carol II ascended the throne in 1930. Clinton's appearance on the podium with Constantinescu—and his vow before throngs of Romanians that “the door to NATO is open . . . and we will help you walk through it”—has, in a part of the world where words and dates are remembered pathologically, assumed the aura of a sacred trust.

It is the purpose of many presidential trips abroad to raise vague hopes and

*The shock of crossing
the border from
Hungary into Romania
was greater than
ever. I observed a
primitive and heart-
rending Europe.*

obscure intractable local realities, so it should come as no surprise if Clinton has made a vow that he cannot fulfill. But this is no routine promise. Clinton's pledge to the people of Romania—the largest and most populous country in the Balkans, with one foot in Central Europe and the other on the Black Sea—is linked to issues at the very core of international relations: the growing but as yet unremarked economic and social split in Europe between the Catholic and Protestant West and the Orthodox East; Russia's new aggression, as expressed through organized crime and energy monopolies; the American need for reliable bases near the Middle East and the adjacent oil-rich regions of the Black and Caspian Seas; the disparate legacies of communism in various ex-Soviet bloc countries; the question of “national character” and its uses in foreign policy; and, most important, America's appetite for hegemony. It is hegemony, and hegemony alone, that has always accomplished the immoderate ambition of establishing one's political system throughout much of the world—something that both liberals and conservatives claim they intend to do.

WHEN I entered Romania by train from predominantly Catholic Hungary last spring, the shock of crossing the border was greater than it had been during the Cold War. Because of Hungary's deeper roots in Central Europe and its market-oriented reforms of the 1960s through the 1980s, Communist Hungary had been far more prosperous than Communist Romania. But since the fall of the Berlin Wall, Hungary's economic acceleration has been so much faster than Romania's that the difference simply cannot be bridged in the foreseeable future. Since 1989 the total foreign investment in Hungary has been \$18 billion; in Romania it has been \$3 billion. Thus with more than double Hungary's population, Romania garnered only a sixth as much foreign investment money. Even as Debrecen, in eastern Hungary, is becoming a forest of chrome-alloy shingles, advertising foreign banks, cash machines, and computer-program providers, the Romanian side of the border is characterized by unpaved roads, few cars, mounds of garbage, rusting and deserted factories, and shacks with missing roofs. When my train stopped a few miles inside the Romanian border, an official slipped into the car's restroom and put the paper towels and toilet paper into his briefcase. When I changed \$80, I received an inch-thick stack of cheapened local currency. As the train moved deeper into Romania, I observed a primitive and heartrending Europe that had changed little since my previous visit, eight years before: hordes of Gypsies washing their clothes along riverbanks, and peasants with pitchforks riding in horse-drawn wooden carts. Everywhere were the heirlooms of Ceaușescu's Stalinism—hideous industrial complexes marked by rust, pebbly concrete, and polluting chemicals, set beside the grinding reality of subsistence agriculture.

In Cluj, the city where I got off the train in the region of Transylvania, I saw a sprinkling of cellular phones, satellite dishes, flashy boutiques, and private security guards. But more meaningful as a sign of modernization were individual people. Communism, by denying individuality, fortified national stereotypes, turning Romanian streets into a sea of suffering expressions like those of icons. Now the Romanian population was less archetypal. I noticed would-be hippies,

café types, nouveaux riches, sports enthusiasts, and so on, who by choosing their own self-images—however derivative they may seem to us—were launching a humanistic assault on the determinism of national character. The women, with their fashion consciousness, seemed far ahead of the men.

These changes, however, are taking place in Romania at a much slower pace than in former Communist republics of Central Europe such as Hungary and Slovenia, and must be understood against an imponderable degree of ethnic national consciousness, a near absence of significant foreign investment outside Bucharest and Timișoara, and a monstrously wasteful and environmentally destructive Communist-era infrastructure. Each of these factors is a drag on development.

Cluj, for instance, is a city predominantly of Orthodox Romanians and Catholic and Protestant Hungarians, who in the course of this century's wars have each occupied the other's territory. The twice-elected mayor, Gheorghe Funar, is a Romanian nationalist who during an interview with me wore the pin of the ultra-nationalist organization Vatra Romaneasca (“Romanian Hearth”). Funar denied the very existence of the 1.5 million Hungarians in Transylvania, telling me that such people were merely Hungarian-speaking Romanians confused about their loyalty. The mayor's antics, which have included removing Hungarian street signs and painting park benches in the loud colors of the Romanian flag, have made Cluj a hard sell to the international business community.

Westerners who are upbeat about Romania do not often venture beyond Bucharest. Indeed, the city has changed dramatically in the eight years since I last saw it. In place of a forbidding Stalinist city whose populace, in baggy, mud-colored clothes, looked like a terrified peasantry, I found a lively metropolis of people wearing modish Italianate fashions (including lots of black leotards and tight leather jackets), noisy young couples kissing passionately in the street, pulsing casinos, private money changers, and countless shops and sidewalk stands selling compact discs and books—everything from Israeli pop music to *Mein Kampf*. In place of dowdy restaurants offering the Communist-era

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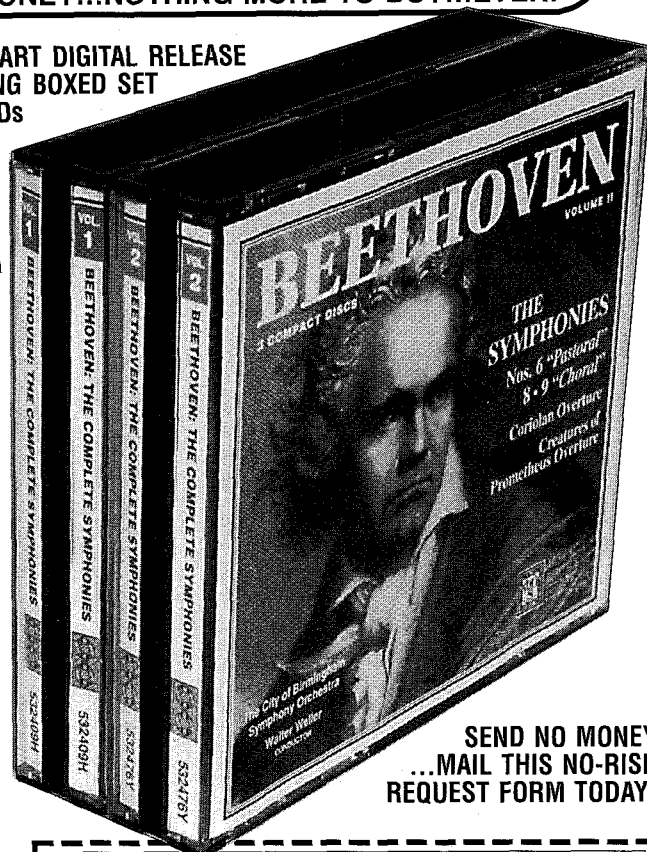
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fare of greasy pork cutlets and plum brandy there were intimate establishments run by young people offering nouvelle cuisine. Topless clubs were common, and sexy Brazilian soap operas dominated local television. Particularly pervasive were cell phones—the perfect product for hustler economies—whose beeping filled the cafés. In the 1980s under Ceaușescu it was forbidden to bring so much as a typewriter into Romania.

“There are no limits with the Romanian nouveaux riches,” Ioana Ieronim, a poet and former diplomat who is a close friend, told me. “We were just like this in the interwar period; we Romanians are resourceful, adaptable, but too often given to exaggeration. Romanians think of themselves as completely Western, and most of them have no sense of what separates Romania and the West. This is the consequence of our many years of isolation. Without an awareness of our own values, we may appear as some pseudo-cosmopolitan émigrés in a new global world—Latin-Byzantine clones of the West. One often meets a crassness and directness, which is an outburst of ‘freedom’ after decades of repression.” Ioana

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told me that she had seen a young, beautiful, rather revealingly dressed young woman trying to “buy” a young professional man. “Indifferent to the other people in the office, quite openly she hoped to persuade him to consent to a sexual relationship with her by explicitly promising to put at his disposal her connections in the world of power—political and professional—even to the point of specifically naming these connections.”

Though Romanian is a Latin language,

the vast majority of Romania’s 22 million people are Eastern Orthodox Christians. Except among the Hungarians and the Romanian elite in Transylvania, there was never an Enlightenment here. “When we buy computers, CDs, and clothes now,” Horea-Roman Patapievici, a leading Romanian philosopher and historian, told me, “we borrow the material consequences of the West without grasping the fundamental values that created such technologies in the first place.” But isn’t this, I thought, how all cultural infusions begin—superficially? For example, in a country that has exhibited some of the most bestial tendencies of anti-Semitism, Jews are now somewhat favored as a cultural symbol, because they represent a cosmopolitanism to which the younger generation aspires. Ladislau Gyemant, a vice-dean at Babes-Bolyai University, in Cluj, told me that when Hebrew was offered recently as a foreign language, hundreds of students, only a handful of whom were Jewish, signed up.

STILL, my overwhelming impression after weeks of travel last spring through this variegated and mountainous country was of a place drifting from the Communist Second World to the Third World. Romania is a less extreme version of Egypt, with a mass of peasantry and a precocious consumer class that is limited mainly to a few districts of the capital. As my train entered Bucharest from the north, I saw miles of corrugated-metal squatter settlements as bad as many in Africa, Asia, and Latin America.

A case in point is the politics. In the period after Constantinescu’s election and continuing through Clinton’s visit it was a mantra of international observers that Romania was a democratic success story. Then the government missed deadline after deadline, set by the International Monetary Fund, for privatization and the other reforms it had promised. Elements of the President’s own National Peasants’ Party—not to mention Funar and others outside the party—balked at Constantinescu’s reconciliation package with Hungary. Prime Minister Victor Ciorbea’s penchant for cabinet meetings lasting as long as eighteen hours in which nothing was decided did not alleviate investors’ fears. Inflation soared, and a budget was delayed. Last April,

Ciorbea resigned; the new Prime Minister, Radu Vasile, has been stymied by divisions within the National Peasants’ Party and also by malignities across the political spectrum, within and between parties. Many of my Romanian friends worried openly about “*Bulgarezarea*”—ungovernability of the kind Bulgaria briefly experienced during the first months of last year.

Interviews I conducted with Romanian analysts, foreign diplomats, and Western businessmen elicited near-unanimous agreement that the problem is one not of this or that policy or minister but of “national character”—resulting less from geography and history than from the sociological legacy of Ceaușescu’s communism. Silviu Brucan, long a leading figure in the Romanian Communist Party, and Dorel Sandor, a Bucharest policy wonk, explained how Ceaușescu, by not allowing a reform wing of the Communist Party or any dissent whatsoever, utterly destroyed the Romanian political elite and even the mechanism for another to emerge. The consequence, Sandor said, is “a nation of weak, fuzzy institutions and coffeehouse politics, where, despite the names of the political parties, there are no ideas, only personal vanity and intrigue.” For instance, he said, Romanian liberals are “not the center-right economic reformers that define liberal groups elsewhere in Europe”; they are “pocketbook liberals, concerned with short-term profit, who don’t want foreign competition to threaten their new wealth.”

Whereas in Hungary 70 percent of the banks have already been sold to foreigners (because, the Hungarian economist Laszlo Csaba told me, “it forces local institutions to run forever on international standards”), privatization in Romania is a record of delays, often followed by demands that only minority shares be offered to non-Romanians. “Our politics is all intrigue,” Patapievici told me, explaining that part of the reason is the Orthodox habit of communicating traditions orally rather than through written texts, which makes everything forever negotiable. A Western financial expert said emphatically, “This is still a peasant society with a peasant suspicion about selling off what is conceived of as the national patrimony.” Information is not disseminated but

jealously guarded. A journalist told me that whereas his office in Hungary's capital, Budapest, requires a new roll of fax paper every other day, because of all the information sent to him by Hungarian ministries, in Romania a roll of fax paper lasts him a month.

What underlies all this, everyone I interviewed told me in one way or another, is that beyond the President and a few ministers there is nothing but wood: almost no one in the government's bureaucracy, they said, is even remotely competent or potentially employable by a Western firm. Though this is a problem in most of the formerly Communist societies of Central Europe, the degree of ineptitude is worse in Romania, where the annual per capita income of \$1,545 is not even half that in Poland.

THE widening gulf between predominantly Catholic societies like Poland and Hungary and Orthodox ones like Romania and Bulgaria is a complex matter of history, culture, and geographic position. Although it is true that Communist regimes in the Balkans were often more destructive than those in Central Europe, the nature of those regimes was partly determined by local history and culture in the first place. Whereas Budapest was a center of the Hapsburg Empire, which saw the birth of modernism in the persons of Sigmund Freud, Gustav Klimt, and others, Bucharest lay within the less enlightened, and poorer, Byzantine and Ottoman realms. In fact, if in 1989 I had based a ten-year prediction of these countries' economic performance solely on their relative economic positions in the late nineteenth and early twentieth centuries, I would have been clairvoyant. Romania shows that no country begins with a clean slate.

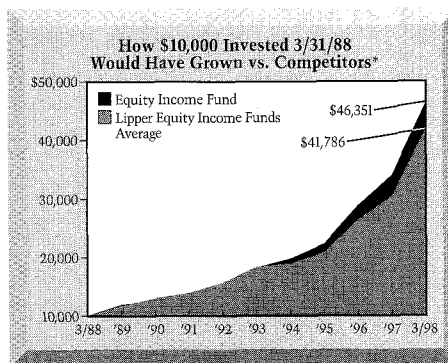
Take religion: "Orthodoxy never offered a moral alternative to the Romanian state, as the Catholic Church did in Poland," Patapievici told me. "Orthodoxy is not an active principle, like Catholicism or Protestantism. Rather, it is passive and contemplative, separated from and therefore tolerant of the physical world and its political order—whatever that order may be." Stelian Tanase, a political scientist and a magazine editor, told me, "In Orthodoxy only God takes risks. We don't." Father Iustin Marchis, a reform-minded cleric of the

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Stavropoleos Church, in Bucharest, said, "Eastern Orthodoxy puts one's relationship with God ahead of that with the community. We can't join a global system until we regain our identity as a nation, which is partly Eastern. Communism deformed it."

Americans may not feel comfortable with such cultural interpretations, but the fact that the three countries that have just been accepted into NATO all belong to the Catholic and Protestant West re-

NATO is the ultimate symbol of Western civilization. Membership would have a pivotal impact on local politics and the fight against organized crime.

flects how undeniable cultural interpretations are except in the abstract. Indeed, by consummating this expansion, NATO has re-created a variation on the Holy Roman Empire, and also the borders dividing the Hapsburg and Ottoman Empires—true civilizational divides.

Romanians know on which side they want to fall. Their territory was violated by Russia three times in the nineteenth century alone, and they know how vulnerable they will be if the West accepts this emerging division of Europe—while, of course, officially denying that it exists. There is no ambivalence here, as there is in the Czech Republic, for instance, about joining NATO. Constantinescu told me, "We see NATO as representing a set of values and standards peculiar to the West which we want: high economic performance, a civil society, and a well-functioning democracy." The President continued, "The hardest thing about the years since the fall of the Berlin Wall and the emergence of a competitive environment was the discovery that we are not all equal. Some are more intelligent than others, some harder-working, some in better positions

to acquire wealth. Economic development in Europe and America was carried out with the utmost toughness, with debtors' prisons and the excesses of the Wild West. To say that we're equal is an insult to our individuality. It is important only that opportunities for advancement be equal. Communism was a reaction against this hard truth. It seduced us into a belief not only in equality but also in rule by the least sophisticated among us—the proletariat. Similarly, we did not start from the same baseline as Hungary and Poland. Our problems as a people are far more complex. It is going to take us a lot more time. At least we are fully democratic—just look at our cabinet crisis. It is precisely because our situation is more fragile that we need the understanding of NATO and the IMF."

In fact, the real debate about NATO is about the Balkans. Even without NATO membership, Poland, the Czech Republic, Hungary, and Slovenia are secure within the Western community, because their reforms almost guarantee acceptance into the European Union at some point. But despite public statements to the contrary, no one seriously expects that Romania and other Orthodox countries will be admitted to the EU anytime soon. NATO is all these countries have if the West is not to lose them again. Romanians intuit that the Eurocrats in Brussels have little backbone, and that if anyone is likely to take a chance on them, it will be the Americans. That is why hundreds of thousands of them greeted Clinton in a seizure of joy. In poor and isolated Balkan countries like Romania and Bulgaria, which, unlike the former Yugoslavia, have resisted the descent into tribalism, NATO is seen as the ultimate totemic symbol of Western civilization. Membership would have a pivotal impact on local politics and the fight against organized crime, with its Russian imperialist undercurrents.

A student at Babes-Bolyai University poignantly expressed the fear of what will happen should Romania continue to lag behind Central Europe and once again be denied NATO membership. Her professors and classmates nodded in agreement as she spoke. I will paraphrase:

"Romanians know that Russia will never really be democratic. We know that our enterprises are worth little and that our society, as in the 1930s, is with-

out ethics. Our new aristocracy is the nomenbratura—the spoiled children of the former Communist elite, which stole state assets after 1989. You Westerners will tire of us. You tell us we must privatize, but it is the mafia and the Russians who buy our companies. A major Romanian oil company was put on sale, but nobody in the West wanted it. It was sold to Lukoil, a Russian company. This is how the Russians will eventually own our country again. You'll see—the Russians will operate through third parties in Europe, so your experts will be able to deny our fears."

Her remarks were very Romanian in their cynicism and their exaggeration, and also in their acute insight—insight of a kind rare in Americans, who generally prefer not to look too deeply into the harsh reality of many societies.

The Russian company Lukoil has in fact sold a small interest in itself to the American company ARCO and in the future may sell more—an example of how the global economy dilutes the economic imperialism that the student was worried about. Moreover, hard evidence for Russian involvement in the Romanian economy and local crime networks is, so far, meager. Nonetheless, as one Western executive in Bucharest told me, "Doing business here by Western standards is difficult. Everything depends on politics. Without Constantinescu behind you nothing happens. No one here likes decisions. No one really knows who owns the casinos, the Athenee Palace Hotel. Too much is obscure, and that does not make for a good impression. When Romanians do sell an enterprise, they sell merely to the highest bidder who meets the rate of extortion. They don't investigate the buyer's background. That adds another layer of uncertainty concerning who owns what. And it's not like in the thirties, when the Jewish, German, and Greek business communities set some reasonable standards—they're all gone."

What has been called Romania's "Franco-Ottoman system" may thus limit the amount of Western investment—and it is Western investment, more than aid or philanthropy, that will transform the culture. International corporate values often reflect Western values. One European executive here told me, "We indoctrinate our staff with the company

ideology—integrity, respect, teamwork, and professionalism. We tell them that our policy is to pay our taxes and do no special favors for friends. Romanians like titles. I tell my Romanian staff not to call me Mister anything, and to confront me with any problem they have. Western managers are not aloof. This is how you change Romania: success depends on Western ownership.” Others told me that they worry that the business climate offers a better opportunity for shady groups of the kind linked to Russia’s new oligarchs—groups that have already made headway in Bulgaria.

The poverty and crime that obtain in Russia and elsewhere in the former Soviet Union are so real to Romanians that their attitude toward their ethnic compatriots in the largely Romanian-speaking former Soviet republic of Moldova, on Romania’s eastern border, has undergone a sea change. When I visited Romania in 1990, reunification with Moldova was popular politically. Now it is much less so, and not just because of the Russian-speaking minority in Moldova that would complicate any reunification scenario. The chaos in the former Soviet Union simply scares Romanians. A Romanian friend whose mother lives in Poland drives to see her twice a year on a route that passes through Hungary and Slovakia, rather than taking the shorter way, through Ukraine. He told me that Ukraine, and Moldova, too, are netherworlds of awful roads, where if you leave your car unattended for a moment, it is likely to be stolen. The dramatic drop in the level of development apparent when I crossed from Hungary to Romania is duplicated when crossing from Romania to Ukraine or Moldova. Random crime is much rarer in Romania than in the former Soviet Union; Romanians’ distrust of their big eastern neighbor is not just ethnic and historical but anchored in daily experience.

It would seem that Romania needs us much more than we need Romania. But that is not entirely the case.

IN Bucharest I spent a full week talking with members of the secular institution Romanians respect most—the military. “The Romanians are ahead of other armies in the region in terms of efficiency,” an American Army officer and Balkan expert stationed in Germany told

me. “Their top guys always assume the blame and don’t punish officers below them. It’s partly a factor of Latin honor. The civilians say we need the military to run things, but the Romanian armed forces say *no way*. Their desire to stay clear of politics is purer than it is in Greece, or certainly than it is in Turkey. Romanian officers are forbidden to belong to political parties. In reality, democracy exists in Romania because of the restraint of the military.”

The Pentagon also likes the Romanians because they are doing what it tells them to: transforming their military from a large, badly educated force more suited to manual labor than to fighting into a smaller, better-trained force organized along flexible, Western command lines. The Nazis considered the Romanian military among the fiercest of Axis troops, and when Romania switched sides, in August of 1944, Allied commanders were equally satisfied with the aggressiveness of Romanian soldiers. The Romanian military’s attitude toward America is no less enthusiastic than it was toward the two sides it fought for during the Second World War. During the Iraq crisis last March the chief of the Romanian general staff, Division General Constantin Degeratu, told me, “We have given the United States overfly rights and the use of several air bases. We stand by the U.S. We are ready to take part in any operation. I gave [chairman of the Joint Chiefs of Staff Henry H.] Shelton full assurances. We understand exactly your problem with Iraq.”

The decades-long experience of living under communism (Ceauescu’s Stalinism in particular), along with the insecurity of being on the fringe of the Western world, has made Romanians, who offer the visitor Oriental coffee and decorate their walls with Byzantine icons, passionately pro-American. Even intellectuals speak of Ronald Reagan with reverence. This is in marked contrast to the climate of Western Europe, where public opinion about the United States is usually skeptical. In crisis situations the public in France, Italy, and elsewhere looks for the slightest inconsistency in U.S. policy in order to deny its validity. Given that the Middle East is a region of major oil reserves, aging dictators, high unemployment among young males, high absolute rises in population, and in-

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creasing urbanization with dwindling water supplies, the recent Iraqi crisis may be but prologue for military emergencies there in the twenty-first century. Romania, closer to the Middle East than most other European countries, is a natural "forward" base for us—especially because the level of sympathy for the United States may surpass even that in Western Europe immediately after the Second World War. In democracies, remember, security policy is ultimately tied to public opinion.

At a time when oil power in the Middle East is moving north, from the Arabian peninsula to the Caspian Sea, the strategic importance of friendly Balkan countries like Romania and Bulgaria—so close to the Black and Caspian Seas (and to Turkey, whose vast water supplies give it increasing leverage over water-poor Arab states)—cannot be over-emphasized. Iulian Fota, an assistant secretary in the Romanian Ministry of Defense, was blunt: "Russia's strategy," he told me, "is to fully re-create a sphere of influence through the former Soviet Union and Bulgaria and then work with France, Iran, and Greece to limit U.S.

mer Yugoslavia and the former Soviet Union. For the sake of ourselves and Europe we need to remain politically stable. We need NATO more than any other country in Europe."

My week of interviews included a dinner with ample plum brandy and wine, at which several members of the military gave me two messages between the lines. The first confirmed what the American officer in Germany had told me: the army hates politics, perhaps because of the Brownian motion it observes at cabinet meetings. It sees NATO as a source of good careers and decent wages, improved training and equipment, and access to international networks—seminars, trips to the West, and so on. NATO is thus an escape valve for the military should Romania stagnate politically and economically. The second was that Romanian officers are terrified of a Europe in which NATO expansion ends at the Hungarian-Romanian border and the ethnically divided region of Transylvania becomes a cultural and political battleground. This second message constitutes a warning: Romania is on the edge; nationalists like Mayor Funar, in Cluj, and Corneliu Vadim Tudor, the head of the Greater Romania Party, are prepared with tirades of hate against minorities, particularly Hungarians, should the West disappoint Romania again.

The West ignores this warning at its peril. As the analyst Stelian Tanase told me, "We Romanians are adaptable: to fascism, to communism, to global capitalism, to whatever the prevailing model seems to be in Europe." The possible influences are various. From the Russian East come systematized, hierarchical criminal groupings. And from the European West the likelihood of borderless prosperity is less certain than it seems. For example, should Jean-Marie Le Pen's National Front continue its march to legitimacy in France, Romanians and others in the troubled formerly Communist countries of Europe could suddenly have another model. Le Pen visited Romania in November of 1997 as the guest of Vadim Tudor.

The late 1990s, in other words, offer a rare and perhaps fleeting moment for bold statesmanship in the Balkans. At the beginning of the Second World War, Bucharest was richer and more cosmopolitan than Athens. And today, with

all its problems, Romania is still more salvageable than was Greece at the war's end. Riven by civil conflict and lacking a modern bourgeoisie, Greece seemed hopeless. But Washington acted boldly and yanked it into NATO. Whatever problems Greece has caused the alliance are minor compared with what they would have been had the Truman Administration been less aggressive.

Romania is now crucial to Europe's new map, much as Greece was in the late 1940s. If NATO accepts Romania's large Orthodox Christian population, the dangerous civilizational divide resulting from economic trends and the first stage of NATO enlargement could be bridged.

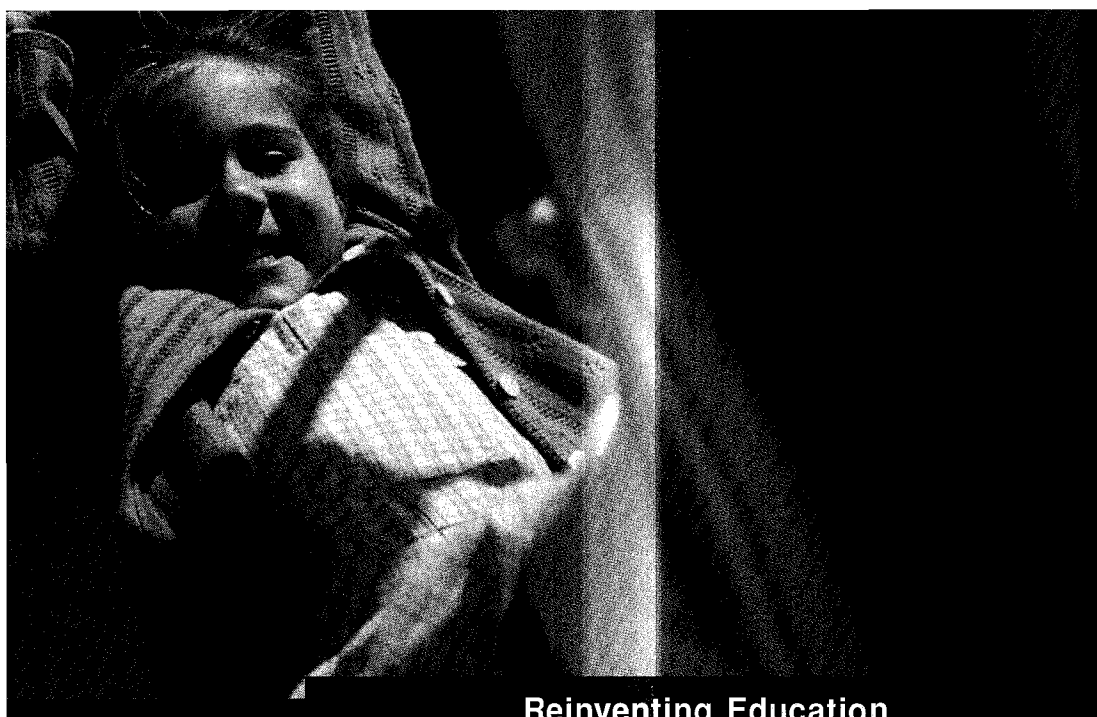
Of course, I may be naive. In the late 1940s, with men like George Marshall, Dean Acheson, and Loy Henderson running our foreign policy, America was both Eurocentric and hegemonic. Today it is neither. Yet listening to the Romanians and the Bulgarians, as I did for weeks, reveals that American Eurocentrism and hegemony are precisely what people in the Balkans yearn for—even if they don't like to admit it.

Watching Romania is often agonizing. Progress is everywhere, even as the divide with Central Europe widens. I saw villages where, through democratic processes and despite the lack of records after fifty years, parcels of land have been returned to their rightful owners, yet rural poverty of a kind unknown in Hungary still obtains. I saw quiet, patient street demonstrations by medical workers in Cluj who are paid \$50 a month. I saw a new wave of young entrepreneurs encroaching on rapacious ex-Communist business barons. The yearning for the West is deep. At the opera in Bucharest I sat in a drafty hall with scratchy acoustics among an enthusiastic audience listening to Puccini and Verdi arias performed by soloists in worn shoes and tuxedos.

Democracy will take Romania only so far. Its proximity to Russia, and the way in which communism deformed its society and made a wreck of institutions, necessitate a reliable Western security umbrella. Without that security, Bill Clinton's legacy may include the redivision of Europe. At the moment, Romania's people have his pledge that he won't let that happen. ☛

This is a rare moment for bold statesmanship in the Balkans. Romania is crucial to Europe's new map, as Greece was in the 1940s.

power in the Middle East. Opposing that will be Turkey and Israel. We can help them. Once Caspian Sea oil starts flowing to Europe across the Black Sea, Romania's international-security profile will grow. Romania is no longer on the periphery of Europe. It is in the middle of a volatile new region between Europe and the Caspian." General Degeratu put it like this: "Romania is the only country in Europe between the two great regions of instability and uncertainty—the for-



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Poor but Prosperous

Development and quality of life can't always be measured purely in economic terms. The Indian state of Kerala is a case in point

AFIFTH of the world's people live on a dollar a day. More than a third are illiterate, and more than a hundred million have no access to basic health care, sanitation, or education. They make up a worldwide underclass whose continued deprivation defies the global rush toward prosperity that has otherwise defined much of this century. Today in the West and in parts of Asia living standards are at unprecedentedly high levels, but for 80 percent of the world's people, that prosperity remains elusive: they continue to earn less than 20 percent of the world's income.

Paradoxically, if there is hope for these people, perhaps it is to be found in a sliver of a state, 24,000 square miles, on the southwest coast of India—one of the poorest countries in the world. That state,

Kerala, is poor even by Indian standards. The gross domestic product per capita is just \$1,000 a year—some \$200 less than the Indian average, and about one twenty-sixth of the American figure. Houses in Kerala are small; clothes are simple and unadorned. For most of Kerala's 33 million citizens life appears to be governed by the narrow circumscriptions of agriculture. Yet consider the following:

- Life expectancy in Kerala is seventy-two years, which is closer to the American average of seventy-six than to the Indian average of sixty-one.
- The infant-mortality rate in Kerala is among the lowest in the developing world—roughly half that in China, and lower than that in far richer countries such as Argentina and Bahrain.
- Population, too, is under control in Kerala. The fertility rate is just 1.7 births

per woman—lower even than Sweden's or America's.

• What is perhaps most impressive is that 90 percent of Keralites are literate—a figure that puts the state in a league with Singapore and Spain. Children in Kerala are likely to beg for pens, not money. Schools—their classrooms clean, well-maintained, and filled with students in brightly colored uniforms—are found seemingly every few miles throughout the state.

These are all indications of a way of life one would expect to find only in parts of the industrialized world—not in a state whose per capita income is lower than that of Cambodia or Sudan. But Kerala is more than just proof that even the poorest of societies can attain a decent standard of living: it also challenges the prevailing view that quality of life is best measured by per capita income. In recent years that orthodoxy has increasingly come under assault by a group of economists and social scientists who would like to see the narrow concept of economic development replaced with a broader notion of social, or human, development. For this group—the driving force behind an annual *Human Development Report* published by the United Nations—health, literacy, and freedom from discrimination are as necessary to a good life as is material wealth. Amartya Sen, a leading economist who has drawn attention to Kerala, has argued that the success and failure of development efforts cannot be judged merely in terms of income and output. "What ultimately matters," he has written, "is the nature of the lives people can or cannot lead."

LEGEND has it that Kerala was created when a Hindu god, Parasurama, threw his ax into the ocean and lifted a new territory from the sea. Today, as I have found on three visits, the state does seem to be made of matter different from its surroundings. Much of Tamil Nadu, the state to the east, with which Kerala shares its longest border, is virtually a desert: a flat, sweltering scrubland. The earth is parched, cracked like the hooves of the meager cows that scavenge for upturned roots; the shrubs are

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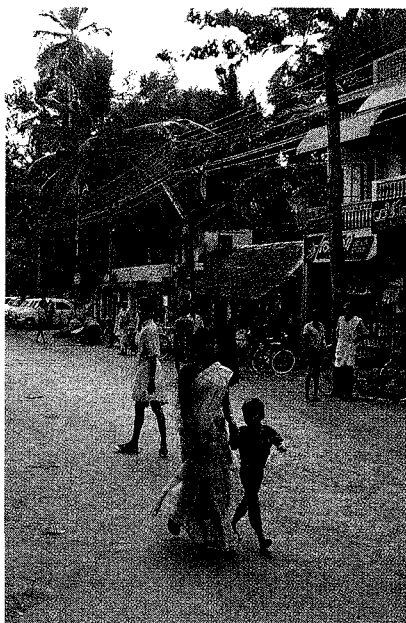
denuded, their bare stalks pointing to the skies like arthritic hands.

From Tamil Nadu, Kerala first appears as a distant series of incisions in the skyline. These are the peaks of the Western Ghats, a mountain range that stands as sentinel to a state as gentle and welcoming as Tamil Nadu is harsh and unforgiving. Lush plantations of cardamom, pepper, rubber, and tea spread over sloping valleys; the green and fertile countryside is home to dozens of rivers and is crisscrossed by a network of shallow canals known as the backwaters. In southern Kerala thin-bottomed boats on the backwaters serve as an informal public-transportation system, offering a quiet alternative to the lunatic buses that prowl the highways. One can catch a boat from almost any village; the ride reveals a lazy landscape of red-tiled houses amid paddies, leafy banana trees, and Kerala's ubiquitous coconut trees.

Kerala's geographic difference is matched by its striking social and political difference from the rest of India. Whereas most of the country appears constantly ready to crumble under religious factionalism, Kerala's sizable Muslim and Christian minorities co-exist peacefully with Hindus, as they have for centuries. Likewise, at a time when India is refashioning itself in the image of American-style capitalism, Kerala remains unabashedly communist, a bastion of militant trade unions and five-year economic plans. Everywhere in Kerala are signs of its anachronistic ideology: roads are littered with small paper flags bearing the hammer and sickle; walls are plastered with portraits of Marx, Lenin, and Che Guevara. Once, when the car in which I was traveling broke down, I found myself outside a mechanic's shop encouragingly named Lenin Auto Parts.

In Trivandrum, the mellow state capital, which spreads over seven hills, I paid a visit to C. P. Narayan, a prominent member of Kerala's largest Communist party. His office was opposite the party headquarters, a hideous slab of concrete, like something out of Nicolae Ceaușescu's Bucharest.

Narayan is not a happy man these days. As the monsoon rains buffeted his windows, and as aides shuffled in and out with papers for him to sign, he railed against global capitalism and India's program of economic liberalization, adopted



Better fed when Red?

in 1991. Kerala, he told me, has no place for the modern industries that are setting up shop all around the country. "What is being done," he shouted over the downpour, "is being done at the expense of many." Waving a copy of *The Economist* that contained a story on the Asian economic crisis, he added, "What we find is that nation-states are being run roughshod over." When I expressed surprise that he should be reading the staunchly free-market British publication, Narayan responded with a comment straight from the trenches of the Cold War. "Of course I read it," he said, chuckling. "We should know what our enemy really thinks and is really planning."

Officials like Narayan have governed Kerala on and off since 1957, when Communists were first elected to the state legislature—the first time that a Marxist government was brought to power democratically anywhere in the world. These people have been responsible for both the worst and the best of Keralan development. The state's poverty can be traced to their strident anti-capitalism: Kerala has an abundance of natural resources, but industries have largely stayed away, for fear of the state's difficult trade unions, pro-union courts, and high minimum wages. The consequence has been one of India's highest unemployment rates—as high as 25 percent, by some estimates—and an economy marked by large budget deficits. But if Kerala's Communists have failed to spur economic growth, they have been singu-

larly successful at implementing development through redistribution. Perhaps more than anything else, the state's high standard of living is a story about equal standards of living. This egalitarianism is primarily attributable to three policies enacted by the political leadership: a generous minimum wage; one of the best distribution systems in the country, leading to a network of shops that sell everything from rice to batteries at subsidized prices; and a land-reform program, legislated by Communists in the 1960s and accompanied by tremendous social upheaval. The last, an ambitious project that abolished landlordism and handed property to 1.5 million former tenants, has been the most important: crops grown on redistributed land ensure Keralites a basic income that shields them from absolute destitution.

THE changes wrought by the Communists reveal a recurring Keralite willingness to upset the existing social order—a tendency that can be traced back at least as far as the early nineteenth century, when the rulers of two southern parts of the state enacted a series of reforms that curtailed the power of the upper castes and of feudal lords. At about the same time, a series of protests by the lower castes initiated a period of drastic social reform.

Until then Kerala had had one of India's most rigorous and complex social hierarchies, prompting the nineteenth-century Hindu reformer Swami Vivekananda to label the state "a madhouse of caste." But toward the middle of the century untouchables and other low-castes began demanding the right to education and access to temples, among other things. Their struggle was remarkably successful. Although isolated cases of discrimination remain, in no other part of India has untouchability—that "blot on Hinduism," as Gandhi famously called it—been so thoroughly expunged from the fabric of social life.

It is hard to pin down the origins of Kerala's tendency to reconceptualize itself. One might begin, though, by visiting the city of Cochin, a ten-hour drive along the coast from Kanyakumari, the southernmost tip of India. A mainland city also encompassing a number of islands, this "Venice of India" is home to one of the country's busiest ports. For centuries its

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narrow channel to the Arabian Sea has served as a gateway to trade with lands as varied as China, Egypt, Greece, Portugal, and Holland. Today the streets of Cochin reflect a remarkable confluence of cultures. Along the shore, fishermen in loin-cloths make their living with funnel-shaped nets suspended from intricate wooden structures, a method imported by Chinese merchants in the thirteenth century. Inland, adjoining the Dutch villas that are home to Cochin's elite, is a church built by Franciscan friars in 1503. Deep within the city's labyrinth of sinuous alleyways is a synagogue, established by a Jewish community whose roots stretch back some 2,000 years.

The ships that harbored at Cochin came in search of gems, tea leaves, spices, and rare Keralan teakwood, which is said to have been used to build the palace of Nebuchadnezzar. "Here . . . it has sometimes happened," a sixteenth-century Portuguese sailor exulted, "that a handful of pearls has been given in exchange for a bell or a looking glass." Such commercial exchanges were accompanied by a robust traffic in ideas. Merchants and sailors brought with them not just the baubles of Western fashion but also the latest intellectual currents and religious teachings. The result is a remarkably outward-looking culture, receptive to new ways of understanding the world, and prone to bouts of self-reinvention. "Ideas, wherever they are generated, are available for public consumption," I was told by P. V. Venkateswaran, a Keralan activist and teacher. "New trends and tendencies have influence in the public sphere."

It is this cultural porousness that must take much of the credit for Kerala's open-mindedness. In contrast to the rest of India, with its history of invasions and foreign occupation, Kerala has been exposed to the outside world primarily through trade and missionary activity. When newness has come to the state, it has come as an unthreatening insight or idea, as a friend. And Keralites have repeatedly responded in kind, assimilating foreign notions to strengthen the best indigenous traits. Thus the Brahminical respect for education, for instance, was initially extended to the lower castes by Christian missionaries, whose schools were open to all sectors of society. Likewise, Kerala's reformist rulers were in-

spired in part by liberal notions of good governance that were just then becoming popular in the West: among the policies they instituted were the abolition of slavery and the adoption of Western-style judicial processes.

TODAY one has only to visit a village tea shop for confirmation of Kerala's continuing openness to new ideas. Here, under dilapidated thatched roofs, seated on splintered wooden benches, and sipping from cracked cups, Keralites congregate throughout the day. The scene is a vivid enactment of Venkateswaran's "public sphere." The conversation is lively and the debate heated, often centering on the contents of a newspaper passed from customer to customer. (Kerala has the highest per capita consumption of newspapers in India.) No subject is too rarefied for these impromptu seminars; Venkateswaran told me that he has participated in discussions on the postmodern tendencies of Keralan film. And, indeed, in bookstores in Trivandrum I found shelves stacked with titles like *Text/Countertext*, *Intimations of Post-Modernity*, and *The Spectre of Hegel*.

The scene at the tea shop is repeated throughout Kerala, in a host of clubs, groups, and associations that clutter the Keralan social landscape. "The state has a remarkable civicness, a great associational life," says Ashutosh Varshney, a political scientist who teaches at Columbia. He likens Kerala to the America observed by Alexis de Tocqueville in the nineteenth

century—a nation filled with "associations . . . of a thousand kinds, religious, moral, serious, futile, general or restricted, enormous or diminutive."

In towns and villages, hanging from the tiled roofs of otherwise nondescript houses, one sees signs advertising soccer clubs, film clubs, and youth clubs—all providing occasions for the kind of interaction conducted in tea shops. Nearly every village has a public library, another hub of social life. And overtly political associations, activist groups dedicated to social reform, exist to an extent unparalleled elsewhere in India. Membership in some of these organizations can number in the tens of thousands; for many Keralites, belonging to these groups seems almost a civic obligation.

The result is a sort of activist democracy, in which well-informed citizens know their rights and feel empowered to take matters into their own hands. Kerala is a proud state, devoid of the self-abasement that so often comes with poverty. Beggars are rare. Women in Kerala will look one in the eye; there is little of that socially conditioned demureness one finds in the rest of India. Less pleasant, but indicative of the same qualities, is the fact that shopkeepers and hotel clerks can be astoundingly rude: service is not a notion that comes easily to the Keralite laborer.

It is, in fact, this refusal to serve that is at the root of strikes by disgruntled workers that often shut down the state. But the same spirit of entitlement has been the engine of Kerala's development. Change has come to Kerala in waves, in the form of popular movements that have bypassed—and, it might be added, achieved more than—the ballot box and other traditional methods of effecting political change. In the nineteenth century lower-caste protests electrified the state; in the middle of this century the land-reform movements galvanized Keralan society.

Then, in 1989, Kerala's activist organizations kicked off a widespread campaign for total literacy. Over a three-year period more than 350,000 volunteers fanned out across the state, taking their blackboards and textbooks to fishing villages, city slums, and remote tribal areas. In the streets and in the fields the volunteers staged plays that adapted scenes from traditional myths and everyday life to spark popular enthusiasm.



SHAMA M. KETKAR/DINODIA PICTURE AGENCY

Life along the backwaters

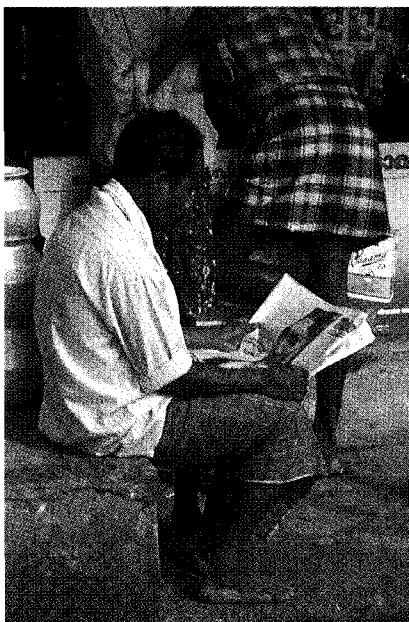
Classes were conducted outdoors, under shady trees, or in the single-room houses of villagers. Elias John, an Indian filmmaker who produced a television series on the campaign, compared its spirit for me to that of “a freedom struggle.”

Like land reform, literacy changed Kerala by instilling self-reliance in ordinary citizens. The earlier movement had guaranteed a degree of financial security; the literacy campaign provided a measure of psychological security. Adult students newly inducted into the ranks of the literate described themselves to John as having overcome a handicap. Some said they had joined classes so that they would be able to read their children’s letters, others so that they would be able to read bus signs and make their way from place to place without assistance.

The new self-confidence had a more public face, too. According to John, one of the most memorable moments in the campaign occurred when a group of neo-literates, led by a handicapped Muslim girl named Rabia, demanded—and got—a road and streetlights for their village. In the district-assembly headquarters on the outskirts of Ernakulam, Sulekha Sasidharan, a district-assembly leader, told me that since the campaign women have become more involved in village assemblies. “Women come and take far more interest,” she said. “Especially now that they are educated, they are more concerned about their children’s welfare.” Others I talked to in Kerala confirmed that the literacy campaign has greatly increased women’s participation in public life—an impressive achievement in a country not otherwise distinguished for the emancipation of women.

ON one of my last days in Kerala, during a sweltering afternoon of low gray skies and oppressive humidity, I visited a Keralan rarity: an industrial complex, a sprawling landscape of factories and assembly plants at the edge of the town of Kalamassery. It was not a pretty sight. The land was arid; a sulfuric stench hung in the air. Instead of gently swaying coconut trees, I confronted a line of billowing chimneys whose exhaust seemed to feed the gray skies.

At a tannery in the complex I got some insight into the conditions that have kept industry out of most of Kerala. For more than two hours one of the five directors



One of the 90 percent

of the tannery lamented the tribulations of working with overeducated and overly assertive laborers, speaking of strikes and aggressive demands for better working conditions. “These people . . .” he said. “Their blood is polluted.” In other states, he told me, workers hunch over and “beg for work,” but in Kerala they always want more.

This company director is luckier than many other Keralan businessmen: after a lengthy court battle he was allowed to import his labor force from out of state. Still, he told me, pointing to a water-treatment facility bordering the company compound, his troubles are not over. Once a month state government inspectors visit the facility, armed with a zealousness that he never encountered in Tamil Nadu, China, or Taiwan—all places he has worked before.

As I was about to leave, I asked the director if he really felt so unfortunate to be living in an educated state that cares about its environment. He shrugged his shoulders, wiped the sweat from his brow, and uttered something between a laugh and a sigh. “It’s a good place to live,” he said, “but a tough place to do business.”

The trouble for Kerala is that in a changing India, doing business is increasingly important. And as the socialist era comes to an end across the nation, Kerala’s resistance to modern industry may prove to be an unsustainable indulgence. For years the state’s economy has hobbled along on one leg—the agricultural

sector. That sector, I was told by Michael Tharakan, a historian at the Center for Development Studies, in Trivandrum, has been supported in large part by national tariffs that have raised the prices of imported crops. (The state’s economy has also been bolstered by the remittances sent home by Keralites who work abroad, particularly in the Persian Gulf.) “In a way,” Tharakan said, “Kerala is being sustained by favorable terms of trade.”

But Kerala does not exist in a vacuum. And as economic liberalization takes hold, tariffs are being lowered. Other states have dealt with the demise of a subsidized economy by turning to free-market enterprise and wooing multinational industries. Driving from Tamil Nadu, for instance, I passed a large Pepsi bottling plant and a gargantuan factory being built by Ford in collaboration with the Indian automotive company Mahindra.

Whether Kerala will have to adopt similar measures is a matter of real concern in the state. Newspapers are filled with stories about cheap Guatemalan cardamom and Philippine coconut oil; even C. P. Narayan, that dyed-in-the-wool Communist, admitted that the state might accept some degree of industrialization—though he hastened to add that Kerala would opt only for “labor-intensive industries.”

Yet even as the Keralan model runs the risk of being steamrolled by a changing Indian economy, it may still prove to be valuable to that economy. Fifty years ago, in a speech celebrating the country’s newly acquired independence, the nation’s first Prime Minister, Jawaharlal Nehru, exhorted his listeners to work on ending “poverty and ignorance and disease and inequality of opportunity.” Today his speech is widely remembered (it was broadcast last year to mark India’s half century of independence), but its idealistic goals remain dismally unrealized. Nehru set out to achieve his goals with an ambitious agenda that focused on developing heavy industry and fostering economic self-reliance. Now, as the nation searches for a new development model, Kerala suggests an alternative—one that not only emphasizes economic growth but also recognizes the importance of an equitable distribution of resources, an open-minded, socially engaged population, and a certain degree of enlightened governance. ♣



Half a World Away

Buenos Aires is a European city six months and a hemisphere out of synch

FROM almost anywhere Buenos Aires is far. It's days by train from Rio or Santiago, eleven hours by plane from New York, fourteen hours from Los Angeles. The city itself is enormous (it covers seventy-seven square miles and has a population of twelve million), but if you ever leave it to see something else of Argentina—Bariloche or Tierra del Fuego, for instance—you realize that it's an oasis of civilization. Surrounding the city are hundreds of miles of pampas—an "endless distance," as Argentina's most famous writer, Jorge Luis Borges,

**by Benjamin and
Christina Schwarz**

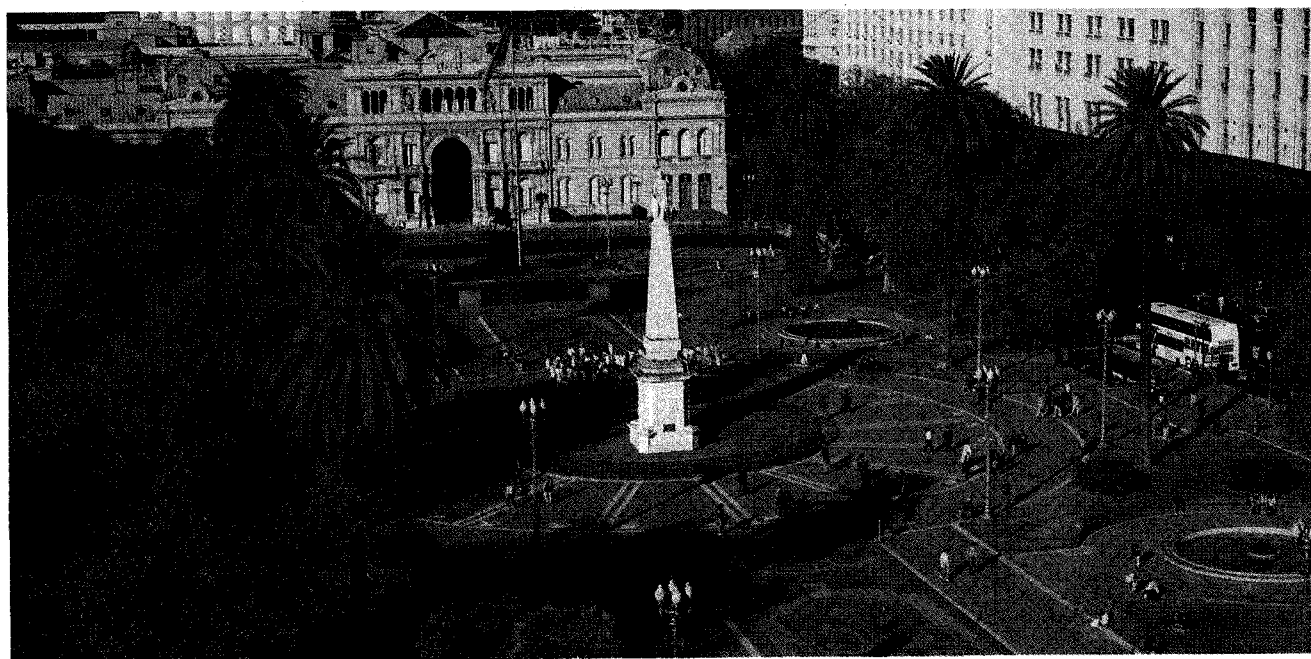
wrote, where "the nearest house [is] a kind of blur on the horizon." Beyond the pampas to the north is the jungle, to the west are the high desert and the Andes, to the south Patagonia—a name synonymous with vast stretches of emptiness—and, after that, Antarctica. It is often said that what the people of Buenos Aires fear most is being forgotten.

But this city in the middle of nowhere has one of the world's great opera houses and once rivaled Madrid as the publishing center of the Spanish-speaking world. Like the great capitals of Europe,

it juxtaposes grand architecture with charming neighborhoods. Its people pride themselves on living in the most sophisticated city south of the Equator.

With its sunny days and balmy nights, Buenos Aires in November is like Paris in the springtime, and that is no accident. The city burgeoned in the late nineteenth and early twentieth centuries, at a time when, as Borges put it, "there wasn't a single Argentine whose utopia was not Paris." With Buenos Aires seemingly on the verge of becoming a world-class economic and cultural power, its leaders modeled their city after the capital they admired. Its grand boulevards are lined with trees and Beaux Arts buildings of soft-white and pale-gray stone with large windows, French doors opening onto balconies with wrought-iron railings, and roofs with gracefully rounded corners. The eight-lane Avenida Nueve de Julio, punctuated by an obelisk and statuary, cuts a grand swath through the city like the Champs-Élysées. Whether out of homesickness, envy, or practicality, Buenos Aires also liberally copied the structures and streets of Spain, Italy, and Britain, the European countries from which most of its population immigrated. For instance, the opera house, the Teatro Colón, suggests La Scala; a replica of Big Ben stands in front of the train

The historic Plaza de Mayo

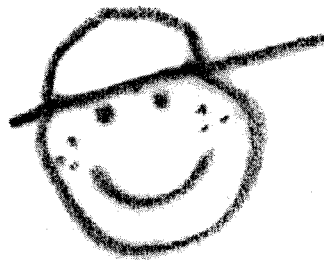


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station; and ornate, turreted Victorian commercial buildings are reminiscent of Manchester.

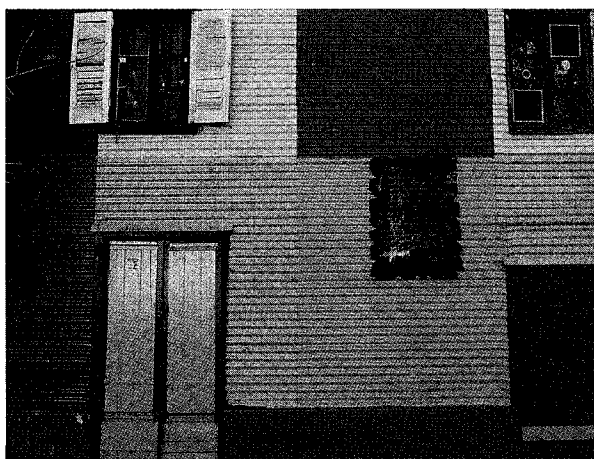
European influence is obvious in less monumental ways as well. The cafés, or *confiterías*, many with their chairs and tables crowding the sidewalks, would be at home in France; the ice cream resembles Italian gelato and the coffee is espresso; and bakeries sell sandwiches with the crusts trimmed as for an English tea. On the way in from the airport you pass some bleak concrete sentry boxes (remnants of Argentina's military rule) that seem to have been lifted from Albania. Finally, like the Spanish, *porteños*—as those who live in this port city call themselves—keep extremely late hours. At first the effect of all this imitation is disorienting. You feel as if you've entered a European Twilight Zone, a parallel universe where things are familiar and yet somehow skewed.

You pass a building that could be on the Quai d'Orsay, but when the plaque near the door identifies it as the Biblioteca Antártica, you know that Buenos Aires is definitely not Paris. Greenery, thicker and brighter than could ever grow in a European capital, smothers apartment balconies and makes lush canyons of the narrower streets. And the trees—the palms, the lavender-flowering jacaranda and the pink-flowering lapacho, the orange-blooming *tipas* with their snaking branches, the rubber trees with their exposed tangles of roots, the spiked and bulbous-trunked *palo borracho* that would be at home in a Dr. Seuss book—are obviously, extravagantly South American.

WE knew we couldn't glut ourselves on three-star sights in Buenos Aires: there are none. (It's the perfect destination for those who like European metropolises but hate having to trudge through all those pesky museums and churches.) Nor, with our pitiful excuse for Spanish, could we fully appreciate the place as the cultural center of Latin America. But we did want

a taste of what it might be like to live in this cosmopolitan city so close to the end of the earth.

We started with the obligatory tourist areas. The Plaza de Mayo, for instance, is the center of Buenos Aires as a capital city. At one end sprawls the President's residence, of soft pink stone—the Casa Rosada, where Eva Perón rallied crowds from the balcony. At the other end, flanked by the Metropolitan Cathedral, stands the original town hall, the Cabil-



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In La Boca, life imitates art imitates life

do, built in 1751 and now a museum of the city's Spanish-colonial history. Like the Casa Rosada, whose color is deceptively gentle, given that it was originally made with beef fat, blood, and lime, today's Plaza de Mayo of picnickers, pigeons, and school tours is difficult to reconcile with its not-so-distant past. This is where the Mothers of the Plaza commanded worldwide attention in the late 1970s for their "disappeared" children, the victims of Argentina's "dirty war," and it has been the scene of violent demonstrations between Peronistas and anti-Peronistas and between leftists and rightists.

A walk south of the plaza along Calle Defensa takes you into San Telmo, the oldest residential area of the city, abandoned by the wealthy after a yellow-fever epidemic in 1871 and now a protected historic district and something of an artists' quarter. The architecture is Spanish colonial, with verandahs, shuttered windows, and tiled courtyards, and the houses, long ago divided into apartments, are romantic in their decay. The window frames are crumbling, the walls have a soft, weathered patina, vines snarl around the railings, and the door knockers are shaped like hands.

Farther south is La Boca, an Italian working-class neighborhood on the Riachuelo Canal, well worth the taxi or bus ride to reach it. The buildings in this district should be just a depressing hodgepodge of shapeless two-story structures made of tacked-together corrugated metal and cheap wood, but instead they are a jigsaw puzzle of bright blues, yellows, oranges, and greens. Like other parts of the city, La Boca is the product of imitation. It's no coincidence that walking its streets feels like moving through a modern painting: the residents of La Boca were inspired to decorate their houses this way after Benito Quinquela Martín, a local artist, depicted the neighborhood in these colors in paintings, murals, and street sculptures.

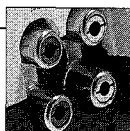
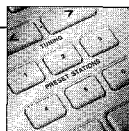
In fact, all over the city the *porteños'* sense of color, shape, and design is striking. This is most arresting at night, when, walking along a dark street, you come upon rectangles of light setting off the whimsical iron gates that serve as front doors for many buildings. In the supermarkets grapefruits, limes, and tangerines are arranged in perfect pyramids; the walls outside the little groceries look like mosaics of red peppers, plums, oranges, and green onions; and every few blocks is a *kiosco*, with its terraced rows of cigarette packages and candy bars in shiny colored wrappers.

Porteños are equally artful with their bodies. They're wild about plastic surgery

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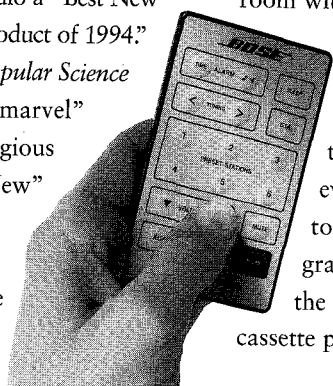
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and brag of their tummy tucks, breast implants, and reformed noses. Even the nation's President, Carlos Menem, proudly announced that he has had his hairline moved and his cheekbones touched up. Cosmetic surgery is only the latest manifestation of *porteños'* self-absorption. Famously, Buenos Aires has more psychoanalysts per capita than any other city in the world—so many, in fact, that a district has been nicknamed Villa Freud for the many analysts who live and work there.

Most guides to Buenos Aires concentrate on San Telmo and the thronged pedestrian shopping street in the city center, Calle Florida, and its surroundings. Although it's a relief to walk a street without cars hurtling at you (Argentines drive as maniacally as New Yorkers), the goods on Florida are less tempting than those available in any U.S. suburb, and the crowds get tedious after your second or third push through. It's obvious that this area is only a temporary destination for Argentines. It has as little to do with *porteños'* daily lives as, say, Times Square has to do with New Yorkers'.

Unfortunately, although not surprisingly, many of the tourist hotels are here. At first we took a room at the Gran Hotel Dora, which we had heard was popular with Argentines visiting from other parts of the country, but for the money we weren't pleased with our dark room on an air shaft.

We looked at the Lancaster, which was brighter and had a friendly staff, but finally decided to abandon this commercial center altogether and find a place to stay in Barrio Norte, a prosperous residential area, loosely comparable to Manhattan's Upper East and Upper West Sides combined.

Through an ad in the *Buenos Aires Herald*, the city's English-language newspaper, we rented a studio apartment with a little balcony and a view of the Río de la Plata for two weeks. There are many weekly rental arrangements, and most come with daily housekeeping service. These are a great deal even if, like

us, you never touch the kitchen. There are also hotels in the area, including the city's most elegant, the Alvear Palace Hotel. Like hotels in the city generally, those in Barrio Norte are either luxurious and very expensive or combine shabbiness and charm in a way that Americans usually encounter only when traveling abroad. We stayed in one of those, the Ayacucho Palace Hotel, for the last week of our trip. Our room had high ceilings and tall French

1970s. But the *porteños'* warmth and friendliness made it impossible to sustain sinister visions of jackbooted soldiers in black-leather jackets patrolling Calle Florida with Alsatians, or of plainclothesmen in well-tailored suits leaping out of unmarked cars.)

MOST of Barrio Norte comprises self-contained middle- and upper-middle-class neighborhoods like Villa Freud, but the section also includes Recoleta, the area to which the wealthy migrated when they left San Telmo, and which is now a district of embassies, tony apartments, and designer boutiques. Behind the walls of Recoleta Cemetery, where the city's most prominent families have been interred since the 1800s, the dead are housed as elegantly as the district's living. Eva Perón's mausoleum is here, inscribed with her maiden name, Duarte.

The graceful atmosphere of Barrio Norte is at the heart of what makes Buenos Aires a supremely pleasant and civilized city. The streets are busy but not frantic; *porteños* are purposeful but not pushy; and every couple of blocks there is an inviting *confitería*, where you are expected to linger over your double espresso. In this section of the city you realize how vast Buenos Aires is. It stretches on for miles, neighborhood after neighborhood, each as densely packed as the next with stores, bak-

eries, restaurants, and six- to eight-story apartment buildings of Beaux Arts, Art Deco, and modern utilitarian styles.

If you do nothing else in Buenos Aires, spend time in cafés, which are the focal point of the city's social life. It seems impossible that one city can support so many, each with a distinct character. For a sense of the city's past and of the vague melancholy that is said to mark its people, try some of the faded grand cafés in the business center. On a rainy Sunday afternoon we sat on sprung leather seats in the Ideal and listened to a singer who took requests from customers who had probably been coming there for decades,



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Recoleta's tony abodes for living and dead

windows but linoleum floors and thin linens. The Guido Palace Hotel, in the same neighborhood, was similar.

Obviously, once you stray from the main tourist routes, the more Spanish you know the better, but luckily waiters, cabdrivers, shopkeepers, and hotel staff members not only struggled patiently to decode our requests, but also often initiated conversations, gesturing and repeating their points tirelessly until to everyone's relief we either understood or pretended to. (Our expectations for Buenos Aires had been somewhat colored by V. S. Naipaul's chilling description in *The Return of Eva Perón* of the city during the

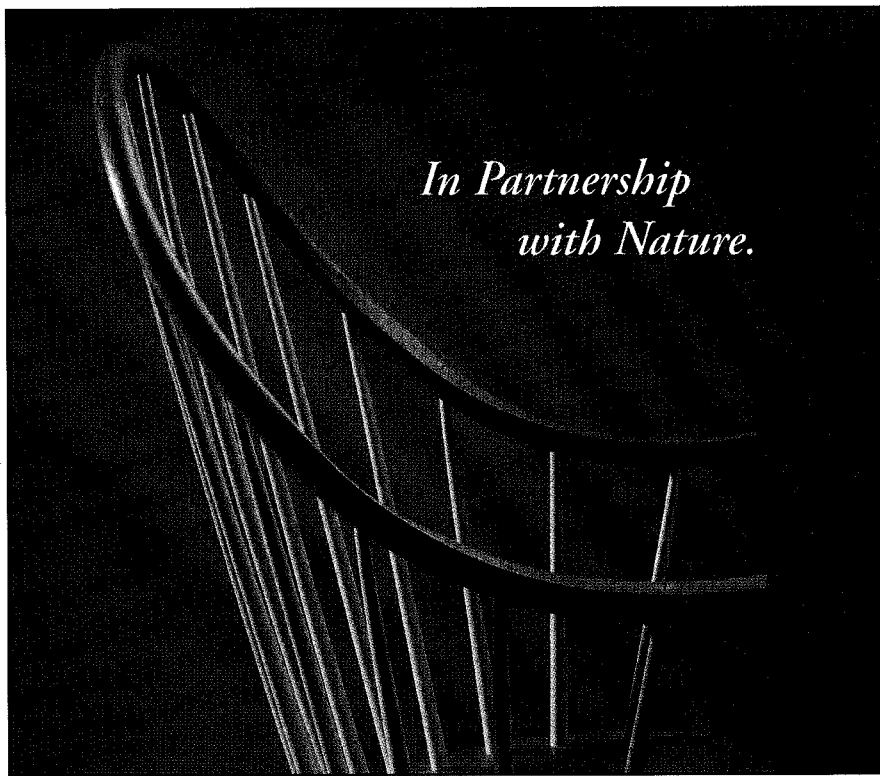
including a family in which three generations were represented. We ordered cake and were brought a plate crowded with exquisite petits fours. We felt compelled to eat them all, not realizing that you pay only for those you consume. The Tortoni, on Avenida de Mayo, traditionally popular with writers, is a bit more lively but equally vast and atmospheric. Elsewhere in the city, cafés lose that museum quality. Often sleek and stylish, they are smaller, brighter, and more vital, reflecting modern life in Buenos Aires, which neatly balances activity with leisure.

Any touring in Buenos Aires should be frequently interrupted by snacking. First thing in the morning have a *café solo* (one shot of espresso) or a *café con leche* and a *medialuna*, the Argentine version of a croissant, smaller and denser than the French kind. At the tiny Café Pasadena you can sit at a table on the sidewalk and, while your lungs accustom themselves to a level of exhaust that Americans haven't breathed for decades, watch the professional dog walkers escort a pack at a time down the street.

Halfway through the morning step into a bakery, or *panadería*. Buenos Aires is awash in bakeries, all displaying fancy cookies, cakes, and breads that are like nothing you see in the United States. In the Panadería Norte, for instance, the cases and trays are so full that it's hard to believe the place is not preparing for some kind of photo shoot but really intends to sell everything. Lots of the cookies are some form of *alfajore*—two wafers sandwiching *dulce de leche*, the caramel sauce that Argentines put on everything from toast to white cheese to canned peaches. If you don't plan to eat your baked goods immediately, they'll be wrapped carefully in paper and tied with a bow, like a gift.

Amenities like this, part of Buenos Aires's customary formality, make even the simplest everyday activities gracious. If you order a cup of coffee, a waiter in a jacket brings it on a little tray and carefully lays in front of you first a napkin, then the espresso cup and saucer, and then a plate of tiny *alfajores* on a doily.

Around lunchtime groups of mothers begin to cluster at nursery school doors, exclaiming with delight as their children are brought to them one by one. Older children, in white coats (school



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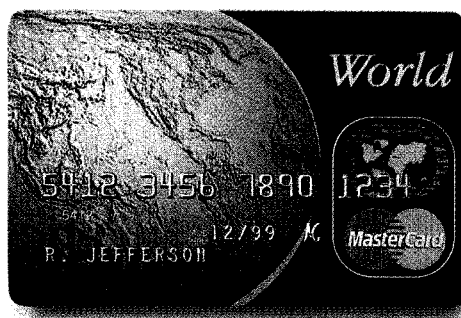
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uniforms that make them look like miniature scientists), walk home to eat, often accompanied by a parent in a business suit. Although many peoples are said to dote on their young, it's remarkable to an American city dweller how much of life in Buenos Aires seems to revolve around children.

Traditionally, lunch is a heavy meal of steak or pasta, because on the whole Argentine cuisine is a mixture of Italian and beef, and the difference between the fanciest restaurant and the simplest is the quality of the meat. Almost all Argentine beef is grass-fed; the most expensive is melt-in-your-mouth sweet, the least expensive—usually served very thin and breaded, as steak *milanesa*—is downright cheap but still far more succulent and tasty than most American cuts. Always-crispy, intensely flavorful *papas fritas*, probably fried in kidney fat, are the usual side dish. Most of the green salads aren't even up to the standards of an American school cafeteria, but after a day or two you'll be happy to eat that plate of boring lettuce, white onions, and tomatoes with your steak.

Evening is another opportunity to snack, since many *porteños* don't even think about dinner until nine or ten: normal office hours are from about eight to eight, with four hours off for lunch. It's easy to get a meal at 2:00 A.M. any day of the week. We felt authentically Argentine with a glass of wine and an empanada at La Querencia, but our favorite evening café, El Cervetillo, served the universally

available appetizer called *picada*: first a tray of cold hors d'oeuvres—octopus, olives, nuts, chicken salad, sausages, and cheese—and then, when you're pleasantly full, a tray of hot hors d'oeuvres—six varieties of sausages, some in sauces. While you sit outside in the warm evening air, bebies of high school girls in those white lab coats meet for a minute or two on the corners, squealing with news, and then scatter in twos and threes down the darkening sidewalks, holding hands. The women of Buenos Aires are known for their warm, intense friendships, independent of men. It's common to see groups of women—married and single—out together, not just for a drink after work but for a whole Friday or Saturday night's entertainment.

Buenos Aires is clearly a big city—dense, busy, and sophisticated. Perhaps, as the home of the tango, it even has a reputation for decadence. Most striking, however, is its wholesomeness, which makes it feel like a vast small town. Even the teenagers lack the sullen, jaded look of their American counterparts. *Porteños* relish the night, but it's a mistake to assume that nightlife means only nightclubs and bars. Here, where the streets are shockingly safe all night long, whole families are out late together, going to movies and eating in restaurants. At Pippo's—a place where the tables are covered in white paper, the waiters are brusque, and two can share a salad, a heaping bowl of pasta with both pesto and meat sauce, garlicky

The Champs-Élysées of Buenos Aires: Avenida Nueve de Julio

papas fritas, steak *milanesa*, and wine and seltzer for less than \$20—parents make their children comfortable on their laps or across two chairs and go on talking until after 2:00 A.M.

On Saturday nights the streets are lively until dawn. When we emerged from the movie theater on Calle Lavalle at 4:30 A.M., it might have been noon, so thick were the crowds still thumbing through cassettes in the music stores, licking ice cream cones, playing video games in the arcades, or simply strolling up and down. (Argentines, by the way, are very serious about movies, and several of the city's screens show art and foreign films nightly. For those, like us, with plebeian tastes, a trip to Buenos Aires is a perfect chance to catch up on mainstream American movies—they are in all the theaters, in English with Spanish subtitles.) At five in the morning we decided to go to the fashionable Café La Biela for one last coffee. Almost every doorway we passed framed a pair of kissing lovers, and the café itself was still half full.

As we sat the next afternoon at a café's open window, eating a *medialuna* with a little ham and melted cheese and watching the children in their lab coats playing beneath a lavender froth of jacaranda blossoms, we tried to remember that it was December, and that in most cities like this one winter was closing in. ☼



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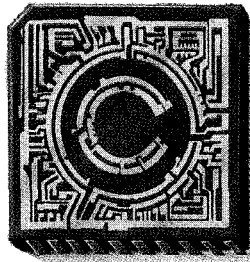
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SAAB

WHO WILL OWN YOUR NEXT GOOD IDEA?

by CHARLES C. MANN



*Some corporations want to lock up copyright even tighter.
Some naive intellectuals want to abandon copyright altogether.
Where is a “do-nothing” Congress now
that we need one?*

ABOUT twelve years ago I walked past a magazine kiosk in Europe and noticed the words “*temple des rats*” on the cover of a French magazine. Rat temple! I was amazed. A few months before, a friend of mine had traveled to northwestern India to write about the world’s only shrine to humankind’s least favorite rodent. The temple was in a village in the Marusthali Desert. That two Western journalists should have visited within a few months of each other stunned me. Naturally, I bought the magazine.

The article began with a Gallic tirade against the genus *Rattus*. *Le spectre du rat, le cauchemar d’humanité! Quel horreur!*—that sort of thing. Then came the meat: an interview, in Q&A form, with a “noted American journalist” who had just gone to the rat temple. The journalist, who was named, was my friend. No such interview had occurred: the article was a straight translation, with fake interruptions by the “interviewer” such as “*Vraiment?*” and “*Mon Dieu!*”

I was outraged. To my way of thinking, these French people had ripped off my friend. I telephoned him immediately; he had the same reaction. Expletives crackled wildly across

the Atlantic. Reprinting his copyrighted article without permission or payment was the same, we decided, as kicking down his door and stealing his CD player.

We were wrong. Although the magazine had done my friend wrong, what was stolen was not at all like a CD player. CD players are physical property. Magazine articles are *intellectual* property, a different matter entirely. When thieves steal CD players, the owners no longer have them, and are obviously worse off. But when my friend’s writing was appropriated, he still had the original manuscript. What, then, was stolen? Because the article had been translated, not one sentence in the French version appeared in the original. How could it be considered a copy? Anomalies like this are why intellectual property has its own set of laws.

Intellectual property is knowledge or expression that is owned by someone. It has three customary domains: copyright, patent, and trademark (a fourth form, trade secrets, is sometimes included). Copyrighted songs, patented drugs, and trademarked soft drinks have long been familiar denizens of the American landscape, but the growth of digital tech-

nology has pushed intellectual property into new territory. Nowadays one might best define intellectual property as anything that can be sold in the form of zeroes and ones. It is the primary product of the Information Age.

All three forms of intellectual property are growing in importance, but copyright holds pride of place. In legal terms, copyright governs the right to make copies of a given work. It awards limited monopolies to creators on their creations: for a given number of years no one but Walt Disney can sell Mickey Mouse cartoons without permission. Such monopolies, always valuable, are increasingly lucrative. For the past twenty years the copyright industry has grown almost three times as fast as the economy as a whole, according to the International Intellectual Property Alliance, a trade group representing film studios, book publishers, and the like. Last year, the alliance says, copyrighted material contributed more than \$400 billion to the national economy and was the country's single most important export.

These figures may actually understate the value of copyright. Today it is widely believed that personal computers, cable television, the Internet, and the telephone system are converging into a giant hose that will spray huge amounts of data—intellectual property—into American living rooms. As this occurs, according to the conventional scenario, the economic winners will be those who own the zeroes and ones, not those who make the equipment that copies, transmits, and displays them. Because copyright is the mechanism for establishing ownership, it is increasingly seen as the key to wealth in the Information Age.

At the same time, the transformation of intellectual property into electronic form creates new problems. If the cost of manufacturing and distributing a product falls, economic forces will drive down its price, too. The Net embodies this principle to an extreme degree. Manufacturing and distribution costs collapse almost to nothing online: zeroes and ones can be shot around the world with a few clicks of a mouse. Hence producers of digital texts, music, and films will have trouble charging anything at all for copies of their works—competitors can always offer substitutes for less, pushing the price toward the vanishing point.

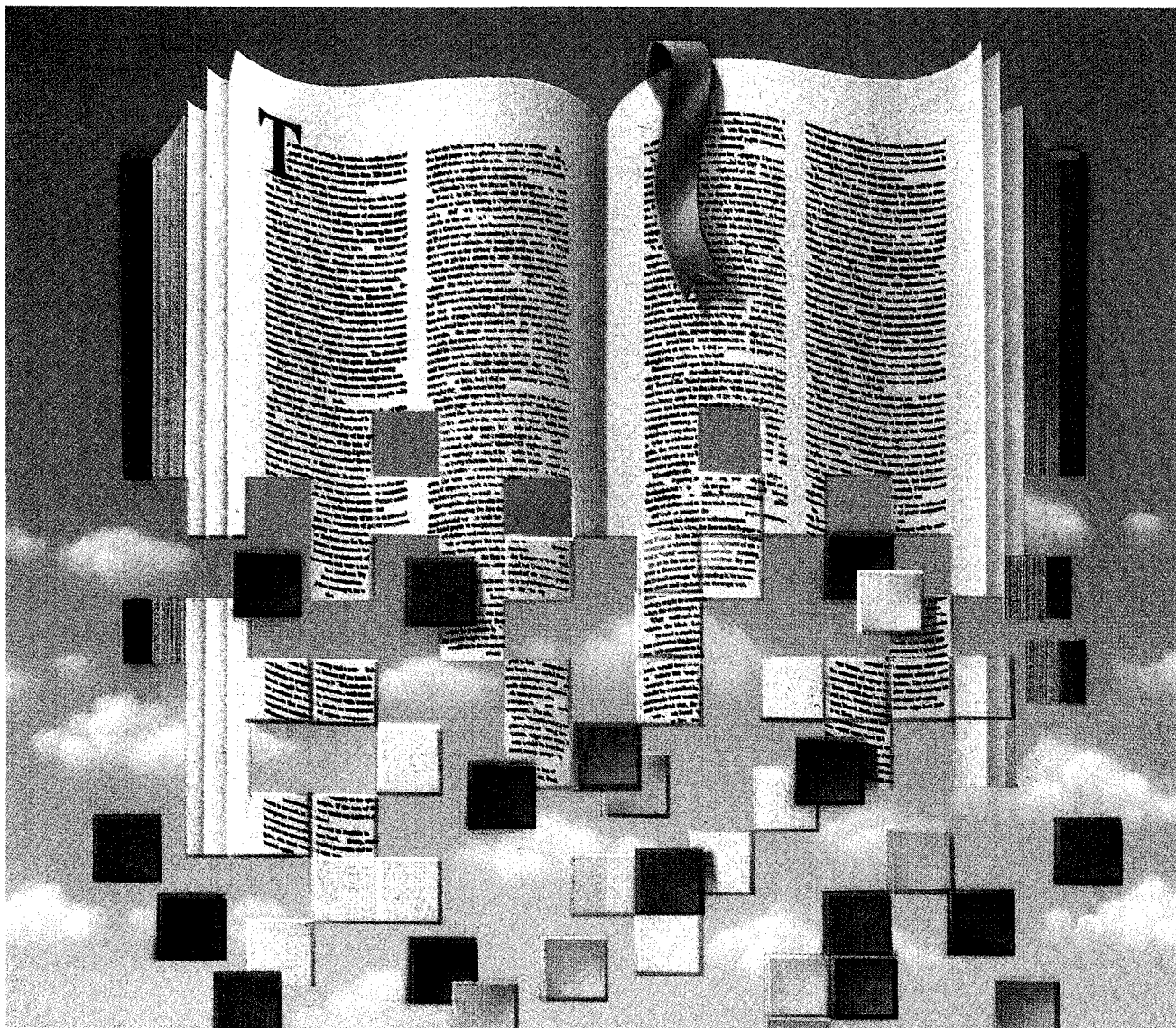
In addition, creators must deal with piracy, which is vastly easier and more effective in the digital environment. People have long been able to photocopy texts, tape-record music, and videotape television shows. Such leakage, as copyright lawyers call it, has existed since the first day a reader lent a (copyrighted) book to a friend. With the rise of digital media, the leakage threatens to turn into a gush. To make and distribute a dozen copies of a videotaped film requires at least two videocassette recorders, a dozen tapes, padded envelopes and postage, and considerable patience. And because the copies are tapes of tapes, the quality suffers. But if the film has been digitized into a computer file, it can be E-mailed to millions of people in minutes; because

strings of zeroes and ones can be reproduced with absolute fidelity, the copies are perfect. And online pirates have no development costs—they don't even have to pay for paper or blank cassettes—so they don't really have a bottom line. In other words, even as digital technology drives the potential value of copyright to ever greater heights, that same technology threatens to make it next to worthless.

This paradox has engendered two reactions. One is to advocate eliminating copyright altogether. Led by a small but surprisingly influential cadre of libertarian futurists, anti-copyrightists believe that the increased ease of copying effectively obviates the © symbol and all it entails. "Information wants to be free"—a phrase apparently coined by the writer Stewart Brand—is the apothegm of choice here. In this view, copyright restricts what people can do with the intellectual property coming through the wires. Futilely but dangerously, it tries to fence the electronic frontier. It unjustly creates monopolies in the basic commodity of the Information Age. It is a relic of the past and should be expunged.

The other, opposing reaction is to strengthen the hand of copyright owners. Realizing the growing economic import of copyright, Congress is rapidly trying to overhaul the nation's intellectual-property regime. The changes would give copyright owners more control for longer times; some would make it a crime to work around copyright-protection schemes. A different tack is being taken by state governments, which may bypass copyright altogether by amending the laws governing sales contracts. If they succeed, copyright owners will be able to ask individual customers to agree to contracts regulating the zeroes and ones flowing into their homes. *Before we send this vintage episode of Seinfeld to your computer, please read the following conditions and terms, paying careful attention to the clauses that forbid taping or replaying the program even once. After you click "OK," the transmission will start.*

Because I make much of my living from copyright, I find the to-and-fro fascinating, and have a vested interest in the results. But issues bigger than the financial status of writers are involved. Copyright is the regulatory authority for the marketplace of ideas. It lays out the economic ground rules to create the hubbub of debate that the Founders believed necessary for democracy—one reason that they included copyright in the Constitution (Article I, Section 8, instructs Congress to "secure for limited Times to Authors and Inventors the exclusive Right to their Respective Writings and Discoveries"). Copyright law allows Michael Jackson to make a fortune from the Beatles catalogue, and Bill Gates to add to his untold wealth by licensing electronic reproductions of the photographs of Ansel Adams. But its real purpose is to foster ever more ideas and ever more innovation from ever more diverse sources. When, in 1790, George Washington asked Congress to enact copyright legislation, he argued that it would increase the national stock of knowledge. And knowledge, he said, is "the surest basis of public happiness."



Today the marketplace of ideas is being shaken up by the competing demands of technology, finance, and law. Large sums of money are at stake. Change seems inevitable. One way or another, we will lay a new institutional foundation for literary culture in the United States. How we do it will play a big role, according to the logic of the Founders, in determining our future well-being. It would be comforting to believe that decisions will be made thoughtfully and well. But little evidence suggests this is true. Indeed, we may be heading into a muddle that it will take us a long time to escape.

SWITCHED-ON BOOKS

SET next to a horse pasture in the foothills of the Santa Cruz Mountains, the Xerox Palo Alto Research Center is a flat, Miesian rectangle with the bronze-tinted windows and anodized-aluminum mullions that are ubiquitous in Silicon Valley. Despite its nondescript appearance, PARC occupies a special place in the annals of computing. In the 1970s researchers there created the windows-and-mouse

interface now seen on millions of desktops around the world. Xerox failed to capitalize on this innovation. Steve Jobs, of Apple Computer, saw it demonstrated on a tour of PARC in 1979. He borrowed the idea, hired some of its creators, and went on to build the Macintosh.

Xerox's decision to shelve the mouse is notorious in digital circles. Less well known is that at about the same time the company decided not to pursue another big innovation: the technology for electronic paper. In this case the company was lucky enough to have a second shot at the idea: the original researcher, Nick Sheridan, remained at PARC, and in 1991 he was given permission to pick up where he had left off. The results of his work were unveiled in an advertisement broadcast during the Olympics last winter.

Sheridan calls his invention Gyricon, for "rotating image," but it's really a flexible, cordless computer screen that looks and acts like a piece of paper. Or will look and act—in its current, still-crude state, electronic paper resembles thin, floppy pieces of gray vinyl. Sheridan asked me when I recently visited PARC if I wanted to hold a sheet. I felt like someone being

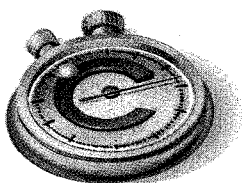
offered the chance to see the first, stasticky RCA television in 1932. The sheet of Gyricon was dark and grainy and had an unlovable, spongy feel. But despite the imperfections I was fascinated. There in my hands was a rough draft of a possible future. If E-paper is widely accepted, as seems plausible, it will turn the world of copyright upside down, and with it literary culture.

Technophiles evoke a future in which ordinary books, bookstores, and libraries disappear, replaced by the all-encompassing pipeline of zeroes and ones into the home. Printed pages, the rancher and rock lyricist turned Internet advocate John Perry Barlow explains, are nothing but bottles for ideas. "Now, as information enters cyberspace, the native home of Mind, the bottles are vanishing," he has written. In the future, says William Mitchell, the dean of architecture at the Massachusetts Institute of Technology, physical books will be of interest mainly to those "addicted to the look and feel of tree flakes encased in dead cow."

As skeptics note, these triumphalist predictions recall the scene in *The Hunchback of Notre Dame* in which the dour, scholarly Archdeacon Frollo confronts a scary new technology: the printing press. "*Ceci tuera cela!*" the archdeacon cries. "The book will kill the church!" Frollo's vision of the demise of religion was spectacularly wrong. Technophobes argue that the predicted death of the book is equally exaggerated. Who will curl up with a computer in bed? they ask. Readers can't dog-ear pages or highlight favorite passages on today's computer screens; they can't even see where the text begins and ends. Indeed, many prophets of the book's demise make their claims in the pages of books—a practice, the PARC consultant Paul Duguid has observed, "which has much of the logic of making yourself the executor of your own will."

Although Sheridan loves the flexibility and ease of digital technology, he tends to agree with the pro-book forces. "Paper has remained unchanged for two thousand years," he told me. "There's a message there." The message is that people like paper; they have not adjusted to bulky picture tubes on their desks. Sheridan likens the monitor to polyester, a substance that did everything but make people want to wear

INTELLECTUAL PROPERTY IS KNOWLEDGE OR EXPRESSION THAT IS OWNED BY SOMEONE. COPYRIGHT, A MECHANISM FOR ESTABLISHING OWNERSHIP, MAY BE THE KEY TO WEALTH IN THE INFORMATION AGE.



it. Xerox studies suggest that most people print out electronic mail that is longer than half a page; paper use rises by 40 percent in offices that introduce E-mail. Instead of trying to make computers replace books and paper, Sheridan concluded, computers should *become* books and paper.

Each Gyricon sheet is made of transparent silicone rubber. Inside are millions of plastic balls, each smaller in diameter than a human hair, embedded in the silicone like so many marbles. Every ball has a white half and a black half, making it look in magnification a bit like a model of the moon. The ball carries an electrostatic charge—the same kind of charge that makes clothes stick together in the dryer. If electrical fields approach, they attract or repel the black half, causing the spheres to rotate within their little pockets in the plastic. If a white half points toward the surface of the paper, it makes a white dot; if a black half is up, the dot is black. Arranging the black and white dots creates a black-and-white image in much the same way that arranging pixels creates an image on the computer screen.

Once rotated, the balls stay in place, locked in position within their cavities. "You can get very long-term storage of an image," Sheridan says. "Or you can run the paper through the charge again and make another image." The plastic can be made cheaply, and each sheet can be used at least a million times before the balls stop working. In contrast, a million sheets of the bond paper in my photocopy machine would cost thousands of dollars and make a stack more than 300 feet tall. Sheridan told me that this technology might be available by 2000. He didn't want to guess when the world might see the next step: electronic books.

What would such devices look like? "Regular books," Joseph Jacobson, a researcher at the MIT Media Lab who is working on another version of E-paper, says. Electronic books "might need a small battery and a port to link to computers, but otherwise the basic format of the book is so useful that I see little reason not to keep it." Three companies—SoftBook and NuvoMedia, in Silicon Valley, and Everybook, in Pennsylvania—are poised to introduce "electronic books" within the next year, but these will be, in essence, keyboard-

less portable computers that can display words. To Jacobson, true electronic books should open and shut like paper books and have bendable pages that can be flipped through. To show text, each sheet in an electronic book would have to be covered with transparent electrodes, much as the screens of laptop computers are now controlled by transparent circuitry. The electrodes would be controlled by chips in the spine. Manufacturing an electronic book would thus be the equivalent of wiring several hundred thin, flexible laptop screens edge-first into a narrow circuit board. Such mechanisms would be hideously expensive at first, but in researching this article I did not meet many people who thought they would never be built.

Readers would open their E-books and see a list of works on the title page—the collected works of William Faulkner, say. To read *The Sound and the Fury*, one would tap the title, and the text, stored in the circuitry of the spine, would flow noiselessly onto the pages. If the tale of the Compsons seemed too involuted, one could tap *Light in August* and actuate it instead, or *Absalom, Absalom!* Given the advances in computer memory, it should be feasible to store entire libraries in every electronic book. Readers could use a stylus to underline favorite passages and write in the margins; the next time the text was generated, the marginalia would appear as well.

Giving me a tour of his laboratory, Jacobson dilated cheerfully on the possibilities of electronic books. In the future, he suggested, books will never go out of print. Landfills will not be clogged with obsolete telephone directories. The Sunday *New York Times* will not consume forests every week. Jacobson had several electronic-paper projects under way, in one of which charged white balls formed an image by swimming to the surface of a dark-blue page. He demonstrated some early versions of his electronic paper, but made me promise not to divulge details, in order to avoid upsetting his corporate sponsors. To my untrained eye his E-paper seemed glitzier than Sheridan's but further from realization.

Imagine, Jacobson said, a world in which decaying stacks of old *National Geographics* did not sit in garages. "You guys must spend a fortune on paper, ink, and postage," he said, referring to this magazine. Why not zap text and artwork directly to subscribers? "That's what they buy the magazine for, isn't it? Not to mention that the whole business of printing and mailing takes so much time." *Atlantic Monthly* subscribers might receive blank electronic magazines, he suggested. Every month readers would plug the magazines into their computers to receive the next issue—or an issue of another magazine, depending on which chips the receptacle contained.

I asked, not for the first time, about piracy. What would prevent unscrupulous entrepreneurs in faraway countries from buying books and magazines and reselling them at half price on the World Wide Web? Would the existence of electronic paper make it dramatically more difficult to sell written works?

"That's the problem, isn't it?" Jacobson said, smiling. Tech-

nology always has an upside and a downside, he said. He thinks that electronic books and magazines will inevitably come into existence, because they promise such economic and ecological advantages. "But we need to do it all in the right way," he said. "Otherwise the intellectual-property issues . . ." His voice trailed off. "Well," he said, "you might really have a negative impact on the culture."

RED, WHITE, AND BLUE FOR \$20

HOW real is the threat of piracy? Very real, according to Jack Valenti, of the Motion Picture Association of America. The world, in his view, is a "heartbreaking," "devastating" "pirate bazaar" in which counterfeiters with "no sense of morality" steal billions from America's moviemakers. In December the MPAA estimated that piracy, chiefly in the form of illegal videocassettes, costs the U.S. motion-picture industry more than \$2.5 billion a year.

Movies are not the only losers. Publishers complain that pirates knock off expensively produced textbooks in fields ranging from business management and computer science to medicine and English. Music companies hire a firm called GrayZone to hunt down bootleg-CD makers and Web-site pirates around the globe. In some countries—Russia and China, for example—more than 90 percent of all new business software is pirated, according to the Business Software Alliance and the Software Publishers Association, the two major trade associations in the field. The International Intellectual Property Alliance claims that foreign copyright infringement alone costs U.S. firms as much as \$20 billion a year.

Critics charge that these huge figures are absurd, and not only because of the obvious difficulty of measuring illicit activity. While researching this article I obtained a CD-ROM called "CAD Xpress" for about \$30 ("CAD" is the acronym for "computer-assisted design"). It contained a copy of the current version of AutoCAD, the leading brand of architectural-drafting software, which has a list price of \$3,750. According to the Software Publishers Association, my copy of CAD Xpress represents a \$3,750 loss to Autodesk, the manufacturer of AutoCAD. This assumes, of course, that I, and every other buyer of CAD Xpress, would otherwise pony up thousands of dollars for AutoCAD.

More important, in the view of Stanley Besen, an economist at Charles River Associates, a consulting firm in Washington, D.C., the huge estimates of piracy losses don't take into account the copyright owners' responses to copying. "Suppose I know that people are going to copy Lotus 1-2-3," he said to me. "So I sell it for \$500, knowing that four people will make copies of each program, whereas I might sell it for only \$100 if all five users purchased programs for themselves." The price takes copying into account, and no loss occurs.

Such accommodations might insulate software firms from

some of the effects of copying. But Besen does not think that they can insulate the companies from all of them, especially when a single bootleg can spawn so many other illicit copies that the original company can't raise the price enough to compensate for the losses incurred. I bought CAD Xpress at the Golden Shopping Centre, in Hong Kong. The Golden Shopping Centre was a kind of shopping mall for copyright infringement: three stories of pirated video games, CDs, videotapes, and software. Situated next to the Sham Shui Po subway station, in Kowloon, the mall was not hard to find—the address was in my *Fodor's Citypack* guidebook to Hong Kong.

The mall consisted of an unlovely concrete block jammed with small, kioskl-like stores. Stores on the first floor sold mainly bootleg video games and devices that permit players illicitly to use games built for one company's machines on machines made by another. The second floor was full of pirated music and film. I wasn't interested in the music, because most of it was Chinese pop I didn't know. But I was intrigued by the stacks of digital video disks. DVDs are compact disks that contain entire movies (they are sometimes called video compact disks, or VCDs). Expatriate cinéastes complain that most theaters in Hong Kong are devoted to the local product: action pictures starring the fleet-footed likes of Jackie Chan and Chow-yun Fat. But the stacks of illegal DVDs included such esoteric fare as the works of the late Polish director Krzysztof Kieslowski, whose trilogy, *Red, White, and Blue*, was available for \$20. *Grand Illusion* for \$6.00! *The Crying Game* for \$8.00! Fellini's *Satyricon* for next to nothing! I began to see what low-cost distribution was all about.

The third floor was devoted to computer programs. Here I bought CAD Xpress. In a gesture to the law, it was sold under the counter. Actually, what was under the counter was loose-leaf binders that catalogued the store's illicit wares. Confused by the descriptions, which were written in garbled English, I asked a woman at one store if she sold AutoCAD, and she spoke to a young person who ran off and ten minutes later reappeared with the CD-ROM. "How much is it?" I asked. She wrote "240" on a slip of paper—240 Hong Kong dollars, then about \$30 U.S. Because I make my living from copyright, I felt funny about buying pirated software. To satisfy my curiosity without arousing my conscience, I had decided to buy software that my family already owned. This idea collapsed when I saw CAD Xpress and its ilk. Competition among pirates ensures that their CD-ROMs are crammed with software; buying a single program wasn't easy. According to my local Autodesk dealer, my \$30 copy of CAD Xpress contains more than \$20,000 worth of computer-assisted-design software.

For me, the software was less than ideal. Most of the instructions were in Chinese, and some of the programs didn't work (or at least I couldn't make them work). But overall the disk was still a good buy. For another \$30 I bought a CD-ROM called Power Dragon Software. One of its forty-eight programs was Quicken, the popular accounting software. Given

the relatively small size of Quicken, I presumably paid less than a dollar for it—indeed, less than a quarter. In another store I bought the same version of Quicken on two floppy disks. This cost \$25—about a hundred times as much, and almost as much as the whole CD-ROM, which included forty-seven other programs. The difference was that the floppy disks came with a photocopy of the manual, which is more informative than the program's help screens. Because the manual was not available electronically, it was considerably harder to copy than the program and hence considerably more valuable.

Many stores in the Golden Shopping Centre sold compilations of computer games, fifty or so per CD-ROM. It occurred to me as I flipped through them that I was inspecting a kind of precursor to the electronic book. I had recently written a book. Completely formatted, the manuscript was about 600,000 bytes in size. A CD-ROM holds more than 600 million bytes, enough for scores of books.

Complaining too loudly about illicit software exposes Americans to a charge of hypocrisy. During the nineteenth century U.S. copyright law did not extend to foreigners' works. New York City became the piracy center of the world. Charles Dickens's *A Christmas Carol* sold for the equivalent of \$2.50 in England. On this side of the Atlantic bootleg editions cost six cents. U.S. publishers were unmoved by the plight of their writers who were pirated in England: they could make more money by stealing *Little Dorrit* here than by selling *Little Women* there. Only in 1891 did Congress pass international-copyright legislation.

I asked the man who sold me Power Dragon if the threat of prosecution worried him. He asked a friend to translate. The friend said, "He is not worried. Soon, very soon, his boss will sell on the Internet. They will send the programs through another country." Which one? I asked. Iraq, India, Bulgaria, somewhere in Africa, the friend said. It didn't matter. In a world made up of hundreds of different nations, someone would always be willing to assist his operations. Later I found out that the salesman was right. When the United States pressured China to stop piracy, last year, most of the industry simply moved across the harbor to Macau. At the time, I asked the salesman's friend if business was good. "Yes," he said. He pointed to the crowd around us. "Better every day," he said.

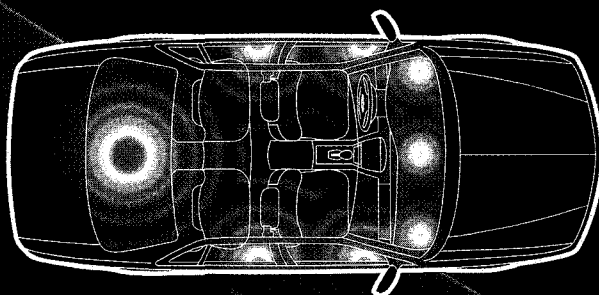
JAMES BROWN HAS A PROBLEM

IF there is a totemic example of the vexations of copyright infringement, it's James Brown, the Godfather of Soul. Now sixty-five, Brown was born horribly poor and raised by his aunt in a Georgia brothel. As a child, he shilled for the brothel by singing and dancing in the streets. He was caught stealing clothes from cars and was sent away for several years when still in his teens. But rather than slide into



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full-fledged delinquency, Brown emerged to begin a fifty-year music career that shaped the course of gospel, rhythm and blues, rock-and-roll, disco, and funk (which he more or less invented). Spinning, falling on his knees, dropping into splits, he climaxed shows with an exuberant fake heart attack, after which he was carried offstage on a cape and “resurrected” by screaming fans. Brown was one of the first African-American pop singers to wrest control of his career—including the copyright to his songs—from the white music establishment.

In the 1980s Brown’s commercial star dimmed. But his

music was heard more than ever before, because rappers by the dozen built their songs around recorded snippets—“samples,” in the jargon, which are “looped,” or played over and over—of such Brown hits as “Cold Sweat” and “Get on the Good Foot.” Thirty years after the release of “Say It Loud (I’m Black and I’m Proud),” Brown’s black-power anthem from 1968, bits and pieces of the song are still all over the airwaves. “It is impossible to listen to more than 15 minutes of rap radio on any given night in Boston without hearing a back beat, a guitar hook, or a snatch of vocals from ‘Say It Loud,’” Mark Costello and David Foster Wallace wrote in

THE RETURN

All afternoon my father drove the country roads
between Detroit and Lansing. What he was looking for
I never learned, no doubt because he never knew himself,
though he would grab any unfamiliar side road
and follow where it led past fields of tall sweet corn
in August or in winter those of frozen sheaves.
Often he’d leave the Terraplane beside the highway
to enter the stunned silence of mid-September,
his eyes cast down for a sign, the only music
his own breath or the wind tracking slowly through
the stalks or riding above the barren ground. Later
he’d come home, his dress shoes coated with dust or mud,
his long black overcoat stained or tattered
at the hem, sit wordless in his favorite chair,
his necktie loosened, and stare at nothing. At first
my brothers and I tried conversation, questions
only he could answer: Why had he gone to war?
Where did he learn Arabic? Where was his father?
I remember none of this. I read it all later,
years later as an old man, a grandfather myself,
in a journal he left my mother with little drawings
of ruined barns and telephone poles, receding
toward a future he never lived, aphorisms
from Montaigne, Juvenal, Voltaire, and perhaps a few
of his own: “He who looks for answers finds questions.”
Three times he wrote, “I was meant to be someone else,”
and went on to describe the perfumes of the damp fields.
“It all starts with seeds,” and a pencil drawing
of young apple trees he saw somewhere or else dreamed.

I inherited the book when I was almost seventy,
and with it the need to return to who we were.
In the Detroit airport I rented a Taurus;
the woman at the counter was bored or crazy:
Did I want company? she asked; she knew every road
from here to Chicago. She had a slight accent,
Dutch or German, long black hair, and one frozen eye.
I considered but decided to go alone,
determined to find what he had never found.
Slowly the autumn morning warmed; flocks of starlings
rose above the vacant fields and blotted out the sun.
I drove on until I found the grove of apple trees
heavy with fruit, and left the car, the motor running,
beside a sagging fence, and entered his life
on my own for maybe the first time. A crow welcomed
me home, the sun rode above, austere and silent,
the early afternoon was cloudless, perfect.
When the crow dragged itself off to another world,
the shade deepened slowly in pools that darkened around
the trees; for a moment everything in sight stopped.
The wind hummed in my good ear, not words exactly,
not nonsense either, nor what I spoke to myself,
just the language creation once awakened to.
I took off my hat, a mistake in the presence
of my father’s God, wiped my brow with what I had,
the back of my hand, and marveled at what was here:
nothing at all except the stubbornness of things.

—PHILIP LEVINE

Signifying Rappers, a critical study of the genre.

What does Brown think of his place on the cutting edge of intellectual-property regulation? I called him to find out. A receptionist patched me through to a cell phone. Brown was in a car and somewhat distracted; he had discerned clues to a fellow driver's mental condition and unwholesome fondness for his mother from his behavior at the wheel. I knew that the unlicensed copying of Brown's music had been curtailed in the aftermath of a 1991 court decision, which prevented the rapper Biz Markie from distributing a record that sampled the singer Gilbert O'Sullivan without permission. I wanted to know what Mr. Please, Please, Please thought of the new software that allows people to put entire albums on the World Wide Web. The previous night, for instance, I had downloaded part of his landmark 1963 album, *The James Brown Show Live at the Apollo*, from a computer in Finland. "This technology," he said, "I hate it. Hate it!" Then he hung up.

"I feel for the guy," says Scott Burnett, the marketing vice-president of Liquid Audio, a two-year-old company in Redwood City, California, that sells a system for distributing music over the Internet. "But James Brown—like a lot of other musicians—needs to say, 'I can't keep fending off the Internet. I need to embrace the Internet and deal with its vagaries. I need to find a way to leverage the Internet, given my situation as an artist, to help me make money.'"

To help musicians safeguard their work in the digital age, Liquid Audio tucks inaudible copyright and licensing data into recorded music, a process called "digital watermarking." To watermark a piece of music, Liquid Audio takes advantage of a quirk of digital recording: its characteristically harsh tone. Even the most grating rock songs are full of smooth, continuous sounds; the sequences of zeroes and ones in digital recording can only approximate the flow, in somewhat the way the steps on a spiral staircase approximate the curve of a helix. To fill in the gaps, a studio will overpaint the recording with a thin wash of noise—a technique known as "dithering." Dithering, according to Rick Fleischman, the company's senior marketing director, "pro-

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vides this extremely low-level noise you can hide things in." By "sculpting" the dither, Liquid Audio can, in theory, encrypt up to sixty-four characters, including the International Standard Recording Code (a sort of serial number for recorded sound), a second code identifying the computer that watermarked the song, a third identifying the computer that downloaded it, and a fourth, added at the time of the sale, giving information about who bought the song.

Such schemes (more than a dozen companies are developing them) may make illicit copies of watermarked works easy to identify, but copyright owners will have to sieve the Internet to find them. In a pilot effort Broadcast Music, Inc. (BMI), one of the major music-rights agencies, has begun sending out "spider" programs that crawl from Web site to Web site, cataloguing sound files in a search for copyright infringers. Digimarc, a photo-watermarking company in Portland, Oregon, has a spider that combs cyberspace on *Playboy's* behalf for unauthorized copies of Miss November. Similar spiders have been used for several years to construct Internet indexes such as AltaVista, HotBot, and Lycos. But the Web is so large that

even the busiest spiders can barely catalogue half of it. Copyright owners will thus be condemned to play an eternal game of catch-up, according to Mark Stefik, a researcher at Xerox PARC, the editor of *Internet Dreams* (1996), and the author of the forthcoming *The Internet Edge*. A real solution to piracy will require what he delicately refers to as "a hardware component."

In the age of the Internet, Stefik argues, the only way to foil piracy—indeed, the only way to charge for intellectual property—will be to equip all televisions, telephones, computers, music players, and electronic books with chips that regulate the flow of copyrighted material. "Kind of like having V-chips for copyright," he says. When I download *The Sound and the Fury* into my electronic book, the ©-chip will register the transaction, speeding my payment to the copyright owner and invisibly encoding the record in my copy of the text. If I lend the novel to my sister by E-mailing her a copy, my E-book will erase the original copy, so that only one is in circulation. The software won't permit my sister to dump the text into any

E-book without a ©-chip, so the copy will always remain within a closed circle. Similar rules will apply to videos, music, journalism, databases, photographs, and broadcast performances—any configuration of zeroes and ones that can be sold and delivered by wire. Current, if primitive, examples of what Stefik calls “copyright boxes” include Nintendo machines, whose proprietary hardware is meant to ensure that only Nintendo-approved games work on them, and digital audio tape (DAT) recorders, which contain a chip that prevents the copying of previously copied tapes.

Copyright boxes could let copyright owners subdivide usage rights, creating new markets for information. If I want to download music by James Brown, for example, I could negotiate the terms at the Web site of his company, James Brown Enterprises. By paying a little extra, I could obtain the right to send a copy of “Say It Loud” to my sister without deleting it from my computer. By paying a little less, I could rent the music for a party next week, with the ©-chip expunging the music the morning after. I might buy a site license, so that everyone in the family could listen to “Say It Loud.” I might acquire only the right to listen myself, typing in a password to prove my identity every time I wanted to hear the Hardest Working Man in Show Business. Copyright boxes, Stefik says, “open up a lot of possibilities.”

These possibilities, he concedes, will not be easy to achieve: “I don’t see this as a debate about next week.” People may find ways to circumvent ©-chips; others may regard the chips as unworkably inconvenient. But perhaps the greatest obstacle, Stefik thinks, is attitude. A small but significant group of technophiles scoffs at the whole idea of copyright boxes, believing that the Internet changes the role of intellectual property so much that the chips will be useless. Some Web denizens believe that the change is profound enough that efforts to safeguard copyright in the digital world actually work against the interests of a democratic society.

FREE SOFTWARE

THE first time I spoke with Richard Stallman, he took off most of his clothes. Clad only in his pants, he marched down a long, busy corridor in MIT’s Laboratory for Computer Science. His destination was a room full of large computers, in which he had installed a NordicTrack exercise machine. In front of the exercise machine stood a big fan, which Stallman switched on. To keep the computers from overheating, the room was air-conditioned to about 65°. When I mentioned the cold-catching potential of shirtless exercise in a frigid wind, Stallman replied that he did not like to sweat. Then he began talking about copyright. Still talking, he stepped onto the NordicTrack and began to exercise vigorously. The fan blew his long hair out behind him like a flag. All the while he spoke with fluency, in neatly organized paragraphs, about copyright in the Information Age.

Writers, he said, do not actually own their words. Computer programmers—Stallman is one—do not own a single line of their programs, and never have. Painters own only their canvases, and those only until they are sold. Far from recognizing any natural rights of authors, he said, copyright is a bargain between the public and publishers, in which the public consents to restrict its rights as a kind of bribe to publishers. “The Constitution doesn’t care whether content owners make money,” Stallman claimed, puffing slightly. “What’s important is the public’s right to learn.”

I thought he was nuts. But the next time I spoke with him, I was contrite. I had since learned that many legal scholars share his views on the nature of copyright, and that he had devoted the past fourteen years to putting his beliefs into practice. Richard Stallman is the only programmer ever to receive a MacArthur fellowship—one of the prizes known, to his embarrassment, as “genius” awards. Having created several essential programming tools, he could easily have cashed in. Instead he gave his work away and set up the Free Software Foundation, a loosely organized group dedicated to replacing proprietary software with programs that people can trade among themselves without copyright restrictions. A principal goal of the foundation is to attack current notions of intellectual property.

In this country copyright was set up by a group of skeptics about copyright. The Founders knew how copyright had originated in Britain, and they didn’t like it. In 1557 Queen Mary I gave control of all printing and book sales to a single guild, the Stationers’ Company. Guild members bought manuscripts outright from writers and then had the exclusive right to print and sell them forever. The Crown even granted exclusive rights to print the works of long-dead writers like Plato and Virgil. In return the guild helped the Crown to censor “seditious and heretical books.” Protected by its statutory monopoly, the guild charged such high prices that John Locke railed against “the company of ignorant and lazy stationers.” Radically, Locke proposed that the guild should voluntarily allow anyone to publish writers who had been dead for more than a millennium. The guild ignored him.

Daniel Defoe led the charge to give writers some say in the literary trade. “A Book,” he argued, “is the Author’s Property, ’tis the Child of his Inventions, the Brat of his Brain.” When publishers ignored writers’ wishes, it was “every jot as unjust as lying with their Wives, and breaking-up their Houses.” Parliament began withdrawing royal monopolies, whereupon the Stationers’ Guild adroitly co-opted Defoe’s call for authors’ rights—booksellers would buy perpetual licenses to manuscripts, and everything would go as before. To the booksellers’ dismay, Parliament agreed that writers should be given control of their works, but only for a limited time (fourteen years, with the option of renewing for another fourteen). The Statute of Anne, the first modern copyright law, was enacted in 1710.

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The guild spent decades trying to recapture its monopoly. In a series of lawsuits booksellers argued that authors naturally own their works, that booksellers can legitimately buy those works outright, and that the government cannot strip businesses of their property after fourteen years or any other arbitrary length of time. The very notion, the well-known jurist Richard Aston said, "is against natural reason and moral rectitude." Wait a minute, Samuel Johnson in effect retorted—if publishers own works forever, they can withhold them from the market, permanently diminishing the common store of knowledge. "For the general good of the world," Johnson believed, a writer's work "should be understood as . . . belonging to the publick." Only in 1774 did the House of Lords declare that authors and publishers have no absolute property rights over their works. To spur creativity, society dangles a carrot in the form of special rights to control distribution. The rights are temporary, meaning that the products of the mind always return to their real state: owned by no one, usable by everyone.

The Founders wholly approved. Products of the human mind "cannot, in nature, be a subject of property," Thomas Jefferson wrote. "He who receives an idea from me, receives instructions himself without lessening mine; as he who lights his taper at mine, receives light without darkening me." Nonetheless, Jefferson saw benefits in awarding writers a short-term monopoly on their works. Monopolies were generally "among the greatest nuisances in Government," James Madison agreed, but copyright was "too valuable to be wholly renounced." Anyway, if problems arose, it could always be abolished. Pamela Samuelson, an intellectual-property specialist at the University of California at Berkeley, says that Jefferson, Madison, and the other Founders regarded copyright as "a small evil done to accomplish a larger good." Like the Statute of Anne in Britain, the U.S. Copyright Act of 1790 gave writers of books, maps, and charts a fourteen-year copyright, with the option of renewing for another fourteen.

The debate about whether authors and publishers owned literary works was far from over. Writers themselves, the Framers of the Constitution were sympathetic to creators' proprietary feelings. They admitted that writers own their work before it is published. So why is it no longer their property afterward? In the most important nineteenth-century legal treatise on copyright, Eaton S. Drone scoffed at the "absurd" notion that authors should automatically lose their property rights—it "cannot be defended on any principle." Mark Twain groaned, "Only one thing is impossible to God—to find any sense in any copyright law on this planet." Sympathizing with creators, Congress has extended copyright to music, photographs, films, software codes, chip schematics, architectural drawings, and many different kinds of "literary works." Although the Supreme Court consistently reaffirmed the primacy of the public over copyright owners, the distinction meant less as Congress heard the owners'

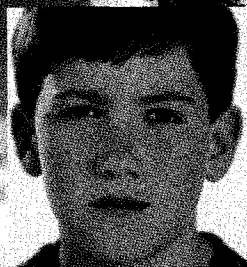
pleas and gradually extended the length of copyright from fourteen years to the life of the author plus fifty years. The copyright term was so much longer than the natural life of most books that, for all practical purposes, authors might as well have owned the rights in perpetuity.

Richard Stallman knew nothing of this when he began working at MIT, in the early 1970s. Programs had passed from hand to hand, with ingenious computer users like Stallman and his colleagues freely tinkering with and improving the code for the good of all. By the end of the decade court decisions and legislation made software copyrightable, and computer-code software was increasingly under lock and key. "People were being stopped from changing, using, and improving software," Stallman told me. "They were forbidden to *share*."

In 1984 Stallman founded the Free Software Foundation, probably the first anti-copyright organization of the digital era. It spawned a movement. Today nonproprietary programs are used worldwide, though they are rarely encountered by ordinary people. Few E-mail users have heard of Sendmail, for instance, although it routes and delivers most electronic mail around the Internet. Nor do most Net surfers know that half the "server" computers that make up the Web depend on free software called Apache. But the most important legacy of the Free Software Foundation may be something other than software: an abiding skepticism on the Internet about the sanctity of all intellectual property.

Perhaps the most widely known copyright skeptic is John Perry Barlow, who co-founded the Electronic Frontier Foundation, a civil-liberties group for cyberspace. Intellectual-property law "cannot be patched, retrofitted, or expanded to contain digitized expression," Barlow declared in a widely read manifesto from 1994. "These towers of outmoded boilerplate will be a smoking heap sometime in the next decade." Barlow's idea derives from his experiences writing for the Grateful Dead. Unlike most bands, the Dead allowed fans to record concerts and trade the tapes, which ended up increasing their audience. "Not that we really planned it, but it was the smartest thing we could have done," Barlow told me recently. "We raised the sales of our records considerably because of it."

Experiences like his, he said, show that copyright is not so much wrong as outmoded: "Copyright's not about creation, which will happen anyway—it's about distribution." In Barlow's view, copyright made sense when companies had to set up elaborate industrial processes for "hauling forests into Waldenbooks or encapsulating music on CDs and distributing them to Tower Records." To make such investments feasible, unauthorized copying had to be stopped—that's why the Dead let fans trade homemade tapes of concerts but sent "nasty lawyers" after counterfeiters who duplicated and sold official recordings. In the future, Barlow told me, people will be able to download music and writing so easily that

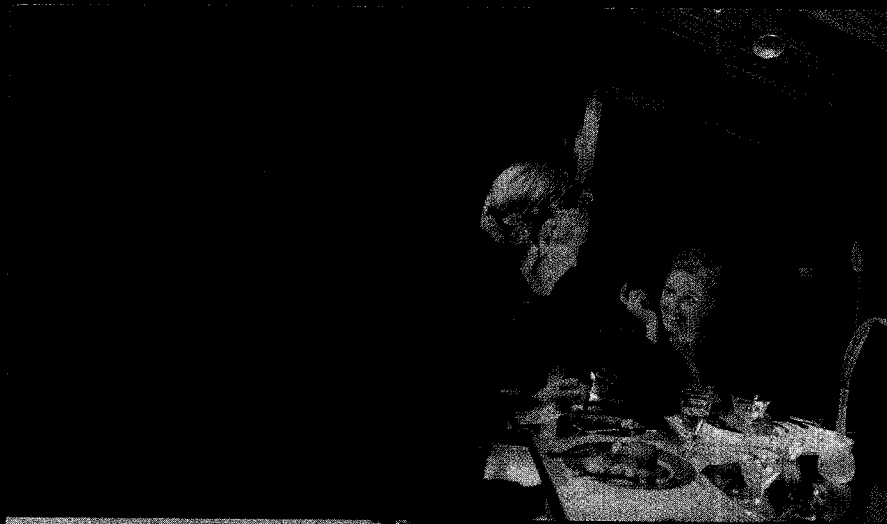


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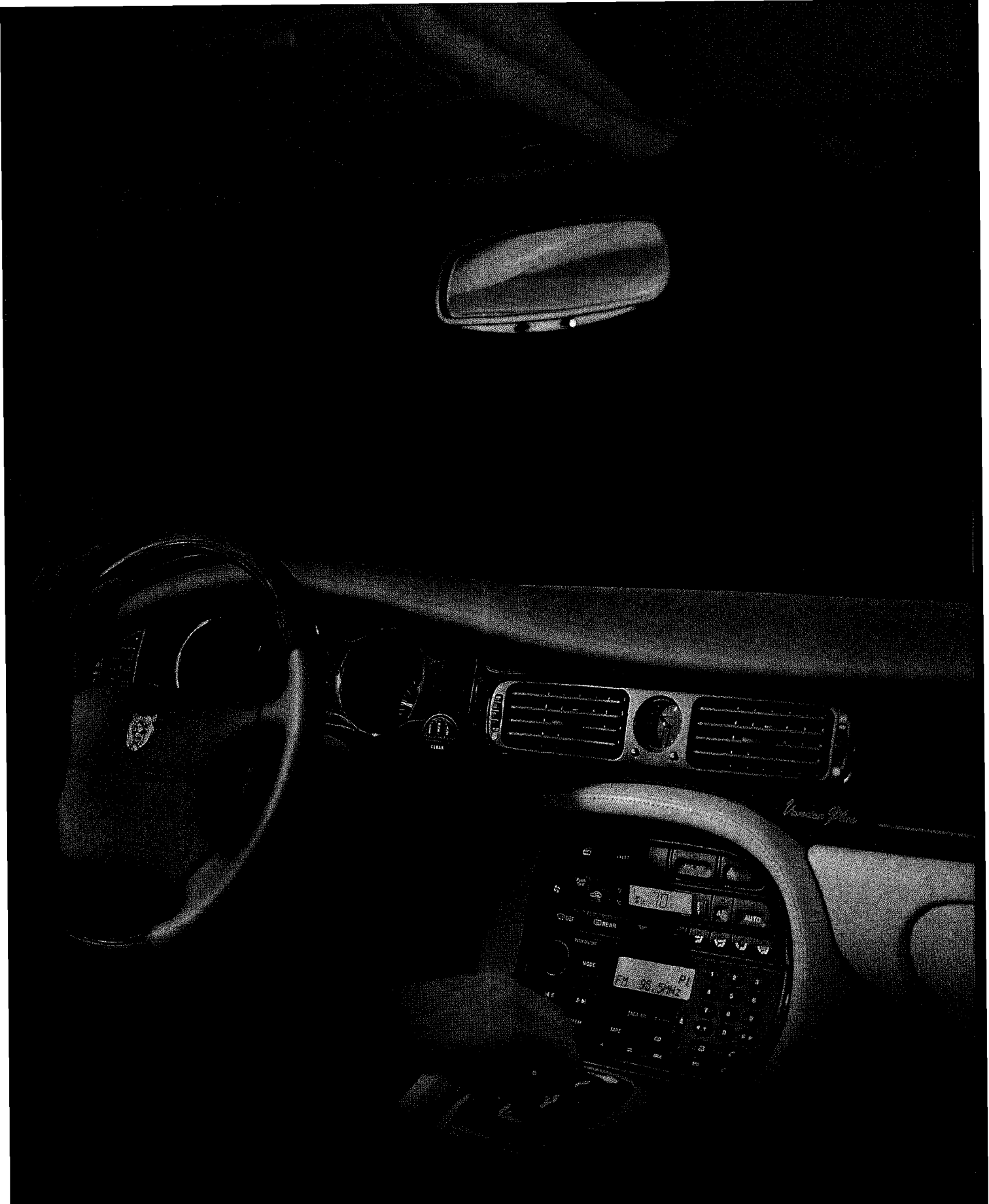


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they will be reluctant to take the trouble to seek out hard copies, let alone want to pay for them. Musicians or writers who want to be heard or read will have to thumbtack their creations onto the Web for fans to download—free, Barlow insisted. Because distributing material on the Internet costs next to nothing, there will be no investment in equipment and shipping to protect. Record companies and publishers will be obviated, and the economic justification for copyright will vanish. Copyright boxes will be ineffectual: the Internet is not just full of people who scoff at copyright but also, as a practical matter, too large to police.

In 1993 Barlow and Mitch Kapor, the creator of the Lotus 1-2-3 spreadsheet, visited the Golden Shopping Centre, in Hong Kong. "Mitch, just as a thought experiment," Barlow recounted, "ordered the latest version of Lotus 1-2-3." The woman in the store told Kapor to come back in half an hour to get a pirated copy. Kapor told her that he had written the program. "The girl," Barlow said, "looked at him without the slightest trace of moral anxiety and said, 'Yeah, but you still want a copy, right?'"

Some people may still try to control their works with copyright boxes, concedes Esther Dyson, a cyberguru who puts out *Release 1.0*, an insiders' newsletter about technology. But they will have a tough time. Dyson has no truck with Stallman's notion that intellectual property is immoral. ("He doesn't have the right to say my property should be free. His can be free, if that's what he wants to do.") Nonetheless, she, too, believes that copyright will fade in importance. Even if creators can use ©-chips to forestall piracy, they will still have to compete for an audience with everyone else posting material on the Net—that is, with the entire world. Like television stations on cable systems with hundreds of channels, writers and musicians on the Internet will be so desperate for audiences that, Dyson says, they will be glad to be copied, because their increased notoriety will translate into lucrative personal-appearance fees. "It's a new world," Dyson says. "People will have to adjust."

Dyson's recent book, *Release 2.0*, sold for \$25. But in tomorrow's wired world, she believes, content providers will be paid for ancillary services or products, not for their works. "Maybe Steven King will post his books on the Internet—and start charging for readings. University professors publish works basically for free, and make money by teaching and by giving their institutions respectability with their names. Already some software companies are distributing software for free and charging for support. Consultants publish free newsletters in order to win clients." Not Dyson, though; she charges \$695 a year for her newsletter, which is available only on paper and is delivered to subscribers by the U.S. Post Office. "It's not a mass-market thing," she explained to me. "It's not timely, it's timeless."

Even without charging for CDs, James Brown, a master of the stage, could survive by giving concerts. Less dynamic

artists, the copyright doubters explain, would seek sponsors. After all, rich people paid artists to create the treasures of the Renaissance. "I don't think it's inconceivable that we can return to that," Barlow says. Corporations might package art with advertisements, the way Absolut vodka pays novelists to deck out its ads with short pieces of fiction that mention the company. "Look at the British Airways commercials," says Richard Saul Wurman, an "information architect" who runs the annual Technology, Entertainment, and Design conference, a wateringhole for digerati. "Some of those ads fit all the definitions of great pieces of art. They move you in the way that you would say a great poem does, and they're advertisements for an airline. It's not such a huge step to a novel created by Coca-Cola."

"Most great works of art were not written for money," Dyson told me, explaining why she is not worried about artists' losing copyright revenues. "Maybe I'm naive, but I think and hope that as this plays out, there will be less incentive for trashy stuff that is only marketed for money." In a world with little or no copyright "we could have more good things and be inundated by fewer bad ones." Perhaps. But before embracing the loss of copyright it might be useful to consider what happened the last time a country, jettisoning all restrictions on literary property, let information go truly free.

INFORMATION ANXIETY

BEHIND the prognostications of the anti-copyrightists is the assumption that we are living in a time of unprecedented change—a "radically new culture" created by the transition from "atoms to bits," in the words of Nicholas Negroponte, the head of the MIT Media Lab. The economic change wrought by the Internet, according to Kevin Kelley, the executive editor of *Wired*, is "a tectonic upheaval in our commonwealth, a social shift that reorders our lives more than mere hardware or software ever can." The advent of the Web, Barlow told *Harper's*, is "the most transforming technological event since the capture of fire."

Economists and historians tend to be exasperated by claims like these. "I do sometimes wonder where they get this stuff," Robert Darnton, a historian at Princeton University, said to me recently. I wondered too. For instance, I asked Richard Saul Wurman about an intriguing assertion—"A weekday edition of *The New York Times* contains more information than the average person was likely to come across in a lifetime in seventeenth-century England"—that appears in extra-large italic letters on the first page of his book *Information Anxiety*. "I forget where I got that, but I got it someplace," he said of this comparison, which has been repeated more than 200 times in the media since the book was published. "But it's easy to see that it's so. It's obvious."

When I described this exchange to Darnton, he made a noise that was the audible equivalent of hiking up his eye-

brows. “Places like pre-revolutionary Paris were just *buzzing* with all sorts of messages being exchanged through all sorts of media,” he said. “It was highly wired, but without the wires.” In the excitement of discovering faxes, E-mail, and other new means of transmitting information, we forget that our ancestors used many other media that have now vanished. Among lost ways of knowing, a favorite of Darnton’s is the improvised political song that circulated through French cities, spreading the latest news like Baroque-era rap. “Children in the eighteenth century could sing songs about changes in government, royal mistresses, and wars,” he said. “Everyone could tell you a dozen political ditties based on one song.” Worried about the plague of rhyming information, the government kept militating against the music of the streets. Talk today about the rising amount of information always refers to published documents, not private, irreproducible communications like these French songs. And who lives in a more meaning-saturated context, Darnton wondered: an American surfing through fifty channels of the same official press conference, or a Frenchman encircled

by tunelessly subversive variants on the day’s events from a dozen different sources?

In his books *The Literary Underground of the Old Regime* and *The Forbidden Best-Sellers of Pre-Revolutionary France*, Darnton has examined what took place as eighteenth-century France gradually lost the ability to restrict intellectual property—exactly what the digital pundits see coming today. Before the Revolution, all books, printers, and booksellers had to have a royal stamp of approval, called a “privilege.” In return for their lucrative monopoly, the French guild of printers and booksellers helped the police to suppress anything that upset royal sensibilities or ran contrary to their interests. Below the happy privileged few was a mob of underground printers, many across the border in Switzerland, who flooded France with pirated, pornographic, and seditious literature. And below them were the nation’s thousands of writers, most at the edge of starvation, trying to persuade underground booksellers to commission a scurrilous pamphlet, a collection of dirty poems, or a tract promoting atheism.

The bread and butter of the outlaws was pirating privileged

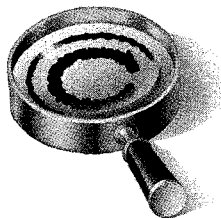


works, especially best sellers like the novels of Marie-Jeanne Laboras de Mézières Riccoboni, a kind of ancien régime Danielle Steel. "When she put out a new novel," Darnton says, "the pirates bribed workers at the [privileged] presses to give them freshly printed sheets." By cutting books into pieces and resetting each piece on a different press, the pirates often got their wares on the streets at the same time the legitimate edition appeared—an eighteenth-century version of the instant piracy that today's publishers fear will happen when books are available electronically. Darnton estimates that before the Revolution "about half" the books in France were illegal.

Nobody was happy. Privileged booksellers detested the underground, the underground loathed the privileged booksellers, and the government wanted to quash both the overweening guild and the pornoseditionary underground. In 1777 the King threatened the monopoly by reducing the duration of publishers' privileges to the lifetime of the author. After writers died, their works would go into the public domain and anyone could print them. Like the British Stationers' Guild, the French booksellers fought back, cloaking their self-interest in the claim that the decree trampled on authors' rights to own their works. Once a writer sold a book to a publisher, the guild insisted, "No authority can take our property from us and give it to someone else."

The booksellers made this argument in January of 1789, just before Paris was engulfed by insurrection. Seven months later the revolutionary government ended the privilege system. No more restrictions: information was free, and anyone could print anything. The result? "Cultural anarchy," according to Carla Hesse, a historian at the University of California at Berkeley. As Hesse recounts in *Publishing and Cultural Politics in Revolutionary Paris*, liberation from copyright turned every bookseller into a pirate. Incredibly, identical versions of the same journal came out—the same headlines and articles printed by different publishers. Trapped by his own advocacy of unfettered speech, Louis Prudhomme, the owner of the newspaper *Révolutions de Paris*, had no recourse when another *Révolutions de Paris* appeared. Serious books, which

I ASKED THE MAN
AT A PIRATED-
SOFTWARE STORE IN
A HONG KONG
SHOPPING MALL
IF BUSINESS WAS
GOOD. "YES,"
HE SAID. HE
POINTED TO THE
CROWD AROUND US.
"BETTER EVERY DAY,"
HE SAID.



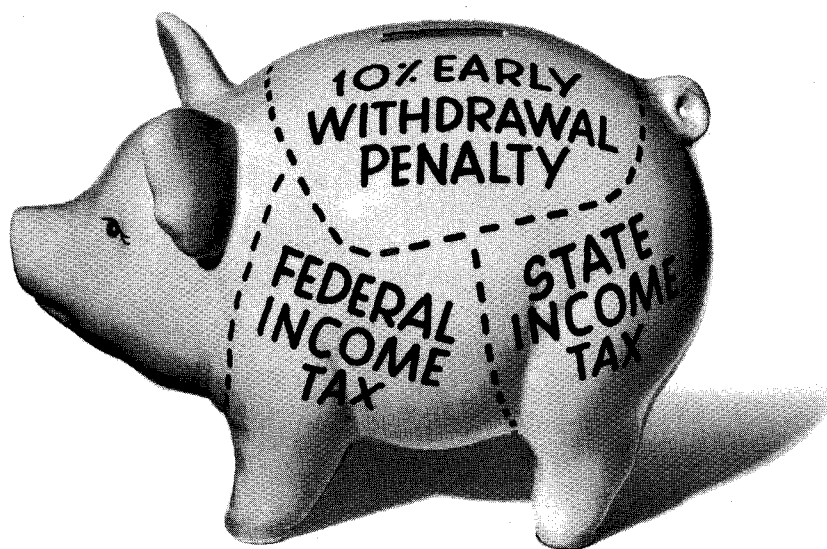
have ever taken longer to sell, were especially vulnerable to piracy, and publishers stopped issuing them. Instead they produced gossipy, libelous pamphlets, which flew off the shelves before anyone could counterfeit them. As for the great texts of the Enlightenment, Hesse writes, "once legalized and freed for all to copy and sell," they "fell out of print."

Enter Marie-Jean-Antoine-Nicolas de Caritat, Marquis de Condorcet. Mathematician, philosopher, education reformer, passionate advocate for science and rationality, Condorcet greeted the Revolution jubilantly despite his aristocratic background. As far back as 1776 he had disputed the notion that authors could own their work. If someone plants a field, Condorcet said, the land can't be used by anyone else; but a writer's words can be used by millions of people without being lost to the originator. Anticipating the visions of digitophiles today, Condorcet limned a utopia in which the citizenry manipulated and circulated information with absolute freedom. Confronted by the reality that lifting all restrictions on literary property had triggered a cultural race for the bottom, the marquis changed his mind. Early in 1790 he proposed

giving authors power over their own work lasting until ten years after their deaths. The proposal—the basis for France's first modern copyright law—passed in 1793, by which time Condorcet had been purged by the Revolution. He died in prison a year later.

Geoffrey Nunberg, a linguist at Xerox PARC and Stanford University, thinks that what happened in France helps to illustrate, among other things, today's confusion about the word "information." After the Revolution the sum of printed material in Paris soared, but that didn't mean there was more information. For centuries "information" was an innocuous noun that meant "news" or "instruction"—data that meant something. Nowadays the word, a mantra for Internauts like Barlow, Dyson, and the editors of *Wired*, has acquired a talismanic power, conjuring up a mysterious domain in cyberspace, filled with irreducible atoms of data, that is somehow the key to power, riches, and fame. The word acquired its technological aura in 1949, when Claude Shannon and Warren Weaver published *The Mathematical Theory of Commu-*

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nication, the book that popularized the term "information theory." People came to think that bits—the "information" in information theory—are the same thing as the "information" that the term ordinarily describes. But they're not. "Information theory is about things like channels and noise and how many bits it takes to transfer texts over a noisy channel," Nunberg says. "It has nothing to say about *content*."

In other words, digital technology may put transcripts and video clips of *The Jerry Springer Show* on thousands of Web sites, but that doesn't increase the world's store of meaning. Condorcet's about-face on the value of unfettered speech suggests that Americans should be careful about allowing the laws of intellectual property to weaken and fail: the debate essential to democracy depends on the national supply of substantive facts, argument, and expression, not the per capita quota of zeroes and ones.

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I DO not mean to suggest that ephemeral outrages like Jerry Springer are the problem. I'm sure that the hundreds of college students in my town who converge in dormitory lounges to hoot ironically at his show are having an aesthetically complex postmodern experience. The problem in post-privileged France was not the shallowness of what was produced (not that it was cause for joy either) but its homogeneity. Tabloid TV is okay, but not if all TV is tabloid TV. I emphasize this because I want to avoid anti-Web overtones. It doesn't take long on the Web to encounter the notion that the fat old-media dinosaur is at all costs trying to silence the vox populi whooshing through the wires of new media. Old media just don't get it—that's the new-media refrain.

An exemplary scene of communication failure occurred when I asked Esther Dyson about the social scientists who question her belief that we have more information today than ever before. After all, having access to more data in the office doesn't necessarily imply that the worldwide sum of data is growing too. "Pardon me, but they're wrong," she said. Her tone suggested that she was exasperated at my denseness. "You couldn't sit in your office and get the things you need—it is very different today, I'm sorry. We're talking about hundreds of thousands of different people trying to push information on the Web." But if the global network is replacing the knowledge of previously disparate cultures with a single reference point, it could actually be diminishing the total . . . "Pardon me, but information is growing," Dyson said. "We're in a radically different time now. It just is different." Then she asked if I had another question.

"The technology *has* changed," Hal Varian, an economist who is the dean of the School of Information Management and Systems at Berkeley, acknowledges. "But that doesn't mean the laws of economics have been repealed." Varian and Carl Shapiro, another Berkeley economist, are the authors of *Infor-*

mation Rules, a forthcoming guide to the "durable economic principles" that underlie the new technology. Yes, Varian says, the Internet means that content providers must compete for audiences in a new medium. But the situation is "hardly unprecedented." Businesses have overcome such problems in the past. Dyson's proposal that software firms give away programs and charge for every support call is "like the old story of giving away the razor to sell the blade," says Stanley Besen, the economist at Charles River Associates. "Nothing really strange there."

Although such economic strategies have been around for decades, the authors of computer programs, newspaper articles, and books have seldom employed them—or at least not with happy results. If software companies made their money by charging for every support call, they would lack the incentive to produce reliable, easy-to-use products. If editors of newspapers and magazines had to depend solely on advertisements and sponsorship, they would be even more vulnerable to conflicts of interest than they already are. If novelists had to make their living from public performances, Thomas Pynchon and J. D. Salinger would be penniless, and Salman Rushdie would be dead.

Content providers have instead relied on two other time-tested strategies. One is to shout for attention—as the Fox network does when it broadcasts videos of wild-animal attacks, or Matthew Drudge does when he prints lurid rumors about political figures in the online Drudge Report. A second strategy is to try to produce works with some special quality, and thereby attract a small, loyal audience. Highbrow artists adopt this method, and so does almost everyone who isn't purveying animal-attack videos: Charles Wuorinen, the atonal composer, and R. Crumb, the underground cartoonist, are two examples. This strategy produces most of the diversity. From the standpoint of society, a major goal of copyright is to smooth diversity's path, by giving creators special rights to exploit their work. If copyright becomes meaningless, the durable economic principles Varian speaks of will make it almost impossible to create works for small, specialized audiences, and an awful shrieking homogeneity will beset the culture.

Copyright works for the public good in another, equally important way: it prevents content owners from locking up the raw materials of culture. Too little copyright protection can be bad, but if copyright is overly strengthened—if what legal scholars like to call its "delicate balance" is disrupted—we face a different peril. What is that? I've found the prospect hard to describe to friends, because there aren't many familiar historical analogies. Sometimes I call it Clickwrap World. Sometimes I call it 1984™. Whatever the name, it's what government and the copyright industry seem to be giving us. Alas, proposed changes in intellectual-property law that are now before Congress and the states have the potential to make the Internet every bit as revolutionary as the cyberpundits say.

CultureTM

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be reduced to
“intellectual property”?**

In September, Atlantic Unbound welcomes Charles C. Mann, John Perry Barlow, Lawrence Lessig, and others for an interactive Roundtable on the ownership of culture in the information age. Join the debate at www.TheAtlantic.com, The Atlantic's home on the Internet.

Unbound

CLICKWRAP WORLD

DAVID Nimmer has a story. Imagine the year 2010, he says. The last Barnes & Noble–Walden–Borders–Broadway store in the United States has just closed. Now no offline book, music, or video stores remain, except for a replica bookstore in Disneyland. Anyone who wants to obtain poems, essays, or novels must download them from the Internet into an electronic book. Anyone who wants to watch a movie, listen to recorded music, or look at a reproduction of a painting must download it into the appropriate copyright box. But before getting books, music, and films, people must first click on the “OK” button to accept the terms of the ubiquitous standard download contract—the “Gates from Hell Agreement,” Nimmer and two co-authors call it in a forthcoming article in the *California Law Review*.

The agreement prohibits the contractee from letting anyone else view the copyrighted material. If problems surface, the agreement authorizes private police officers to descend on users’ houses to check for illicit printouts and copies. Should search victims whine about unwarranted search and seizure, the courts reply that they freely signed away those Fourth Amendment rights by clicking the “OK” button.

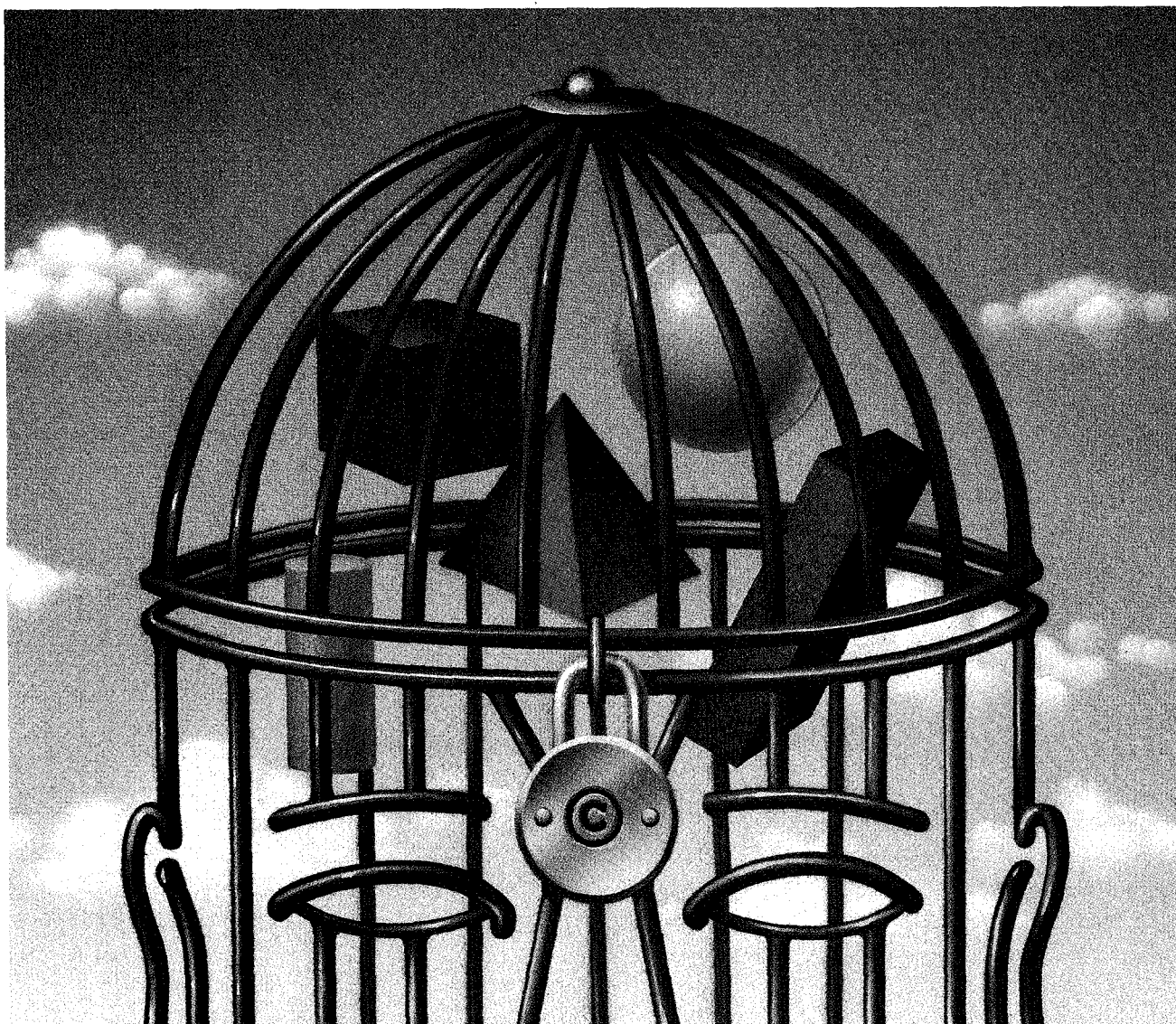
“Crazy, isn’t it?” Nimmer says of this scenario. “But that’s what they’re talking about.” A former federal prosecutor, Nimmer is now at the Los Angeles firm of Irell and Manella, and is an author, with his late father, of *Nimmer on Copyright*, a widely cited treatise. A lawyer who represents entertainment, publishing, and technology companies, Nimmer is an advocate for the rights of copyright holders. Yet he is greatly distressed by some of the proposed legislation. “You’re talking not about copyright but about an attack on copyright,” he says. “I’m extremely bothered by where we might be heading.”

Because the copyright industry has energetically campaigned for protection against illicit copying, Congress is knee-deep in copyright bills. One of the most important would bring this country into conformity with a treaty adopted in 1996 by the World Intellectual Property Organization. WIPO administers the Berne Convention, an international-copyright agreement enacted in 1887. The WIPO treaty, which is universally lauded, asks signatory nations to “provide adequate legal protection . . . against the circumvention of effective technological measures” against piracy. To implement this request, the Clinton Administration and many prominent Republicans have backed legislation that bans making or using any device that can evade any method of copy protection. In making the vague language of the treaty harshly specific, the Administration set off an explosion of protest.

Proponents of the legislation, who range from Jack Valenti, of the MPAA, to Mark Stefik, of PARC, regard it as essential to fighting piracy—unless evading copyright protection is

made illegal, copyright boxes will be futile. New “cable modems,” Valenti says, “can haul down a two-hour motion picture in about two minutes. If we don’t have a protective shield around our encrypted material, I don’t have to tell you how dangerous that will be.” Opponents such as Adam Eisgrau, of the American Library Association, and Pamela Samuelson, the Berkeley law professor, believe that the proposed legislation is more sweeping than needed to implement the treaty. Today students can go to the library, photocopy maps from an atlas, and hand in the copies with their homework. Such private, noncommercial copying is traditionally known as “fair use.” If the electronic atlases of the future have ©-chips that make any copying impossible, libraries may not be able to help students in the same way without breaking the law; the penalties for circumventing copyright protection will apply even to fair use. One proponent, Allan Adler, of the Association of American Publishers, says that carving out exemptions for libraries and home users will give the legal go-ahead to manufacture devices to beat copyright protection, which will make the ban useless. Publishers will not abuse their sweeping new powers, he says, because they will have to compete with other publishers who can offer books on more-favorable terms. Eisgrau argues in return that the technology is changing so rapidly that no one can predict the conditions of tomorrow’s market. “So why put architecture into place that encourages abuse?” he asks. The Senate passed the implementing legislation in May by a 99–0 vote. But in the House the two sides, each driven by its own fear of the future, have been skirmishing bitterly in committee. The fight will continue this month.

By a voice vote in May the House did, however, pass a separate major copyright law: the Collections of Information Antipiracy Act, which makes databases copyrightable. In 1991 the Supreme Court ruled unanimously that a company can copy a competitor’s entire telephone directory without infringing copyright, because facts cannot be copyrighted, and the listings, though expensive to collect, are just facts. Economists decried the decision, which reduces the incentive to create databases. The database industry begged Congress for help. Opponents continue to fear that in the long run the Collections of Information Act will effectively make the facts in databases copyrightable—a big mess for everyone, especially reporters. Remember the remarks from Samuel Johnson and Daniel Defoe cited above? As is common journalistic practice, I lifted them from someone else—in this case Mark Rose, of the University of California at Santa Barbara, who spent countless hours scouring eighteenth-century periodicals in researching his book *Authors and Owners: The Invention of Copyright*. My failure to attribute the quotations to Rose was discourteous but not illegal—fair use applies. If Rose had assembled those quotations into a database of pithy remarks about copyright, matters might change. Although the database-antipiracy act specifically allows journalists and re-



searchers to use isolated facts from databases without permission, opponents believe that the new law, by permitting prosecution, will make reporters and scientists reluctant to cite facts. "Here we are, privatizing a large chunk of the world of fact," says James Boyle, a copyright specialist at the Washington College of Law at American University, "and *The New York Times* hasn't even written a story about it." The Senate has not yet considered the House bill.

Yet a third congressional action would extend the term of copyright to the life of the author plus seventy years, the length now common in Europe. The proposed legislation would also protect works owned by corporations for as long as ninety-five years. The extension is fervently backed by the estates of songwriters, including Oscar Hammerstein II; without it, "Ol' Man River" and other songs from the 1928 musical *Show Boat*, with music by Jerome Kern, might go out of copyright in 2003. To Hal Varian, of Berkeley, the extension doesn't make economic sense, because people generally discount future prospects; lengthening the term after death will not greatly motivate innovation. Especially odd, in Varian's opinion, is the

plan to grandfather in material that has already been created. In cost-benefit terms, giving the company a longer time to use the material simply extends its monopoly without much offsetting benefit to the public. Neither the Senate nor the House has voted on the bill.

When these proposals appeared, last year, they aroused violent opposition from what Barlow proudly calls "a ragtag assembly of librarians, law professors, and actual artists." He adds, "This will sound hyperbolic, but I really feel that the copyright industry, its congressional supporters, and the Clinton Administration were trying to propose that if you read a book, you were making a copy in your memory and should therefore pay a proper license." The underlying legislative problem is that "the movement is all in one direction," James Boyle says. "There's no movement to contract copyright terms or increase fair use. And that isn't even starting to talk about Article 2B."

In intellectual-property circles "Article 2B" is shorthand for proposed changes in that portion of the Uniform Commercial Code. The primary body of commercial law in the

United States, the UCC traces its origins to the late nineteenth century, when representatives of the states, worried that Washington would preempt local governmental power, convened and agreed to draft standardized laws that would settle many interstate confusions and also keep Uncle Sam away. After enacting statutes governing areas such as divorce, stock transfers, and business partnerships, the states ambitiously decided in the late 1940s to create a comprehensive national framework for buying and selling. Since 1974 the Uniform Commercial Code has held sway in every state (Louisiana hasn't endorsed all of it).

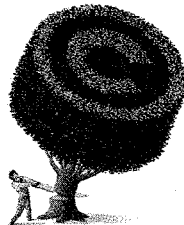
Article 2 of the UCC governs sales. If a customer in a store selects and pays for a shirt without exchanging a word with the salesclerk, can the shirt be returned because of a defect? Yes, because the transaction is covered by an implied contract, and the terms of that contract are set out in Article 2. Buyers automatically get an "implied warrant of merchantability"—a promise that the merchandise is fit for ordinary use.

Naturally, some businesses would rather not accept returned goods. To avoid Article 2, they must disavow the warrant of merchantability. Conspicuous signs saying ALL SALES "AS IS" will do the trick. Note the "conspicuous"—the disclaimer can't be hidden. The annals of state courts are littered with suits in which sneaky sellers hid disclaimers in the glove compartments of cars or within packages of seeds. Invariably, the merchants lost.

Now consider a customer who selects and pays for a computer program without exchanging a word with the salesclerk. Thinking that the software can be returned if defective, the customer drives home, opens the shrink-wrapped box, and—what's this? Inside the box is a limited warranty and a license agreement. The warranty for my copy of Windows95, for instance, disclaims all "implied warrants of merchantability." Does this absolve Microsoft from Article 2? In 1991 the federal appellate judge John Wisdom said no. "Shrinkwrap licenses," as they are called, change the terms of the implied contract after it has been negotiated, violating the Uniform Commercial Code.

Manufacturers hide licenses inside the box because shopkeepers and customers alike would rebel against such terms if they were clearly stated at the time of sale. Despite the po-

CONGRESS IS RAPIDLY OVERHAULING OUR INTELLECTUAL- PROPERTY REGIME. HOW WE DO IT, ACCORDING TO THE LOGIC OF THE FOUNDING FATHERS, WILL PLAY A BIG ROLE IN OUR FUTURE WELL-BEING.



tential for alienating customers, the industry believes that the licenses are an essential weapon in the war against piracy. ("Nonsense," Nimmer says. "This law called the Copyright Act gives them all the protection they need.") Software producers also say that programs are so complex that they cannot be offered at a reasonable price with warranties of usability. Hence the dismay with which software companies greeted Judge Wisdom's decision against shrinkwrap licenses. In 1996 another federal judge, Frank Easterbrook, ruled that the licenses were legitimate. But the conflicting decisions left the companies keen to overhaul Article 2.

An additional motive was the emergence of "clickwrap" licenses—the interposition of an on-screen disclaimer and an attendant "OK" button that users must click to accept its terms before downloading intellectual property from the Web. Clickwrap licenses, too, are controversial, because buyers cannot conceivably negotiate their terms. Such contracts have frequently been ruled invalid. Although a federal judge in California, relying on Easterbrook's shrinkwrap decision, decided last

April that clickwrap agreements are enforceable, the software industry wanted the new Article 2B to remove all doubts.

In plain language, the proposed Article 2B legitimizes both shrinkwrap and clickwrap licenses. This in itself upsets consumer advocates. What dismays David Nimmer and other experts is that the licenses have already been used to claim such wide-reaching rights that their general application could have a major impact on the culture as a whole. "People don't understand what's going on, because it's software, and software is strange stuff to them," says Cem Kaner, a software developer and lawyer in Santa Clara, California. "But it's exactly the same as buying a book and being told that you can read it only in one room of the house and can't lend it to friends."

Microsoft Agent is a program that makes cute little animated figures. The license not only tells customers they can't "rent, lease or lend" the program but also informs them that they have no right to make the figures "disparage" Microsoft.



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McAfee VirusScan, the leading anti-virus software, has a license term that is every writer's dream: nobody may publish a review of the program "without prior consent" from the company. But even that is surpassed by Digital Directory Assistance, maker of PhoneDisc, a CD-ROM containing millions of phone numbers and addresses. According to the license, the software can't be "used . . . in any way or form without prior written consent of Digital Directory Assistance, Inc."

If agreements like these govern electronic books in the future, the ©-chip inside will not permit the text to be transmitted unless the customer first accepts the clickwrap license. Because current licenses typically forbid copying or lending intellectual property, Nimmer fears that copyright owners will end up with all the protections of copyright while the public is forced to surrender its benefits—especially the right to lend privately or copy within the limits of fair use the expressions of others. Any reader who wants to challenge the licenses for overreaching copyright will be forced into litigation—a situation that inevitably redounds to the benefit of large companies that can afford to pay legal fees. "It's an end run around copyright," Nimmer says. "It provides a mechanism to put a stranglehold on information, and that in itself is a bad idea."

I submit that it is even worse than he thinks. Copyright, according to Martha Woodmansee, an English professor at Case Western Reserve University, is implicitly based on the "romantic notion of the author." During the Renaissance, she explains in *The Author, Art, and the Market*, writers generally considered themselves vehicles for divine inspiration, and thus not entitled to benefit personally from their work. "Freely have I received," Martin Luther said of his writing, "freely given, and want nothing in return." In the eighteenth century the book trade grew; some writers changed their minds about making a living from the pen. Justifying the switch, the German philosophers Johann Fichte and Immanuel Kant evolved the image of the artist as a sovereign being who creates beauty out of nothing but inspiration.

This picture, though lovely, is incomplete. Artists often combine the materials around them into new forms—inconveniently for copyright, which assumes solitary originality. As the critic Northrop Frye put it, "Poetry can only be made out of other poems; novels out of other novels." Shakespeare derived some of the language in *Julius Caesar* from an English translation of a French translation of Plutarch; he followed a printed history so closely for *Henry V* that scholars believe he had the book open on his desk as he wrote. In this century Eugene O'Neill gleaned *Mourning Becomes Electra* from Aeschylus. Charles Ives was an inveterate borrower; in his Fourth Symphony the second movement alone quotes at least two dozen tunes by other composers. Andy Warhol filled galleries with reproductions of Brillo boxes, Campbell's soup

cans, and photographs of Marilyn Monroe. And so on.

Warhol's place in art history is uncertain, but in one respect he was right on target. In a time increasingly dominated by corporate products and commercial media, the raw materials out of which art is constructed seem certain to include those products and media. In the 1940s little girls bonded emotionally with anonymous dolls and had elaborate self-transformative fantasies about Cinderella, whose story they might have heard from their parents. Today girls bond with Barbie™ and dream of the broadcast exploits of Sabrina the Teenage Witch™. Fans fill the Internet with homemade stories about Captain Kirk, Spiderman, and Special Agent Fox Mulder—skewed, present-day versions of the folktales our forebears concocted about Wotan, Paul Bunyan, and Coyote the Trickster. Five hundred channels watched six hours a day—how can art that truly reflects the times ignore it?

Copyright should not impede artistic efforts to explain our times. Nor should we let it interfere with the relation between producers and consumers of art. Any work of art is a gift, at least in part—something done not purely from motives of calculation. Knowing this, people approach works of art in a more receptive state than they do, say, advertisements. The same people who would unhesitatingly copy Microsoft Word at their jobs, the novelist Neal Stephenson said to me recently, "would no more bootleg a good novel than they would jump the turnstile at an art museum." Stephenson, the author of *The Diamond Age*, a witty, imaginative science-fiction novel about pirating an electronic book, and the forthcoming *Cryptonomicon*, believes that in the long run this relationship of respect and trust is the only safeguard that works of art have. It is also the reason they are worth safeguarding. What will the act of reading be like if every time I open a book I must negotiate the terms under which I read it? The combined changes in copyright law could lead us closer to what Michael Heller, a law professor at the University of Michigan, calls "the tragedy of the anticommons," in which creators and writers cannot easily connect, because they are divided by too many gates and too many tollkeepers.

It seems unlikely that in the foreseeable future all ties will be severed. But opposing pressures from the Internauts who want to open copyright up and the software companies and publishers who want to clamp it shut presage major change in the way our culture is created and experienced. Unfortunately, as Hal Varian points out, we will be changing laws today to fit a tomorrow we can as yet only guess at. The likelihood of guessing correctly now, he says, is "close to minimal." Yet it's easy to feel the pressure to make—and force—decisions right away. As I write this, knowing that I am close to finished, I realize what will be one of the first questions my editors ask: whether they can put this article on the Web. ☛

In fact, this article (along with the rest of the September issue) is available on The Atlantic's Web site, at <http://www.theatlantic.com>, supplemented by links to related articles and other online resources.

Come Back Irish

by WENDY MAI RAWLINGS

BETH was going to learn Irish. She had gotten herself a slim illustrated book called *Speak Irish Now*. In it were pictures of kitchen implements, body parts, a hurley stick, sheep. But the words on the page were clusters of consonants, as indigestible as bricks. For instance, “*d’fhanfadh.*” For instance, “*ndeachaigh.*” Most of the words seemed to be about the same length. They were cunningly unphonetic; they got shipwrecked in her windpipe. They were, as a woman from Donegal had once said of her countrymen, a clannish lot.

After six years on Long Island, Beth had begun hassling Eamon about going home with him. No time, he’d said; no money. Then his father had unexpectedly bounced back from a pair of heart attacks: a sign, Eamon said, that he should spend his savings on tickets home.

At JFK lightning storms delayed their flight. Eamon found a kiosk that sold only Murphy’s, and traded two five-dollar bills for flimsy plastic cups of stout. He held his high in the air. “You’re a great woman, so you are,” he told Beth. “It’ll be



something to hold my tea in the morning,” he said.

A zigzag of lightning cracked against the sky. Beth jumped. “What you need,” Eamon said, “is a Guinness and black-currant. For the nerves.”

Beth was drawn to brogues, Emerald Isle kitsch, the shillelagh-and-tea-cloth brand of Irishness. Now she had invented a match game of family members and favorite drinks to help keep track of all the relatives—a kind of mnemonic device in a glass. She even had one for herself: a rich dark stew of stout and syrup.

When at last their plane taxied down the runway and took

grand, you and my dad in McCormack’s for big filthy pints. For that alone he’ll want to marry you.” His sisters drank only crème de menthe. His brothers preferred German beer, lager after lager. His mother, now dead, had been a devoted whiskey drinker; she finished a pint of Jameson’s each night and then filled the bottle with tea and milk for Eamon to take to school. “I was the only one who thought she drank the whole bottle so that I could have

As a child she had kept a pony in a small stable
behind her house. One afternoon, in a moment of pure
misunderstanding of her own motives, she
had encouraged it to bite her

off, the flight became an airborne booze cruise, the passengers' demands for little bottles of liquor noisy and unabating. Beth took out *Speak Irish Now* and read while she drank her little bottle of chardonnay. Foreign-language primers always seemed inordinately preoccupied with the weather.

"I think it's *flichshneachta* out there," she said.

What was that? Eamon asked.

"Sleet."

"You'll get a lot of *flichshneachta* in Ireland," he said. He explained Beth's interest in the Irish language to the passenger beside them, an ancient man with a throaty, incomprehensible Cork brogue and a carpeting of dandruff across the shoulders of his suit jacket.

"No one has Irish anymore," the man said fiercely. He might have been objecting to shoes of a certain era, or an outdated dance step. He ceremoniously offered Beth a throat lozenge, and then joined Eamon in pretending they needed Beth to order extra cans of beer for them.

When they stood to deplane in Dublin, the man offered Beth a cold hand. "*Ní thabharfadh an duine sin deoch uisce duit*," he said, and then vanished.

"What did he say?" Beth whispered.

"He said you wouldn't give a man a drink of water."

AT customs they had to separate; Eamon and his Irish passport with a gold harp printed on the cover went to the left, Beth and her eagle-stamped one to the right. He walked backward and waved to her as he got in line with the other Irish citizens—a young mother with a yowling baby and three stooped old men. Eamon looked oversized among them, a giant boy in a white sweatshirt scarred brown down the front with stout.

Yet Eamon was, after a decade in America, adulterated, only a partial Irishman, an uncomfortable Hibernian hybrid. "Resident alien," the card in his wallet declared him, like some half-recognizable species—a turnip with a human head. He had always wanted to live here, he often said as they drove in heavy traffic toward Manhattan's show-off of a skyline, but he had always wanted to stay back home. "My detoured leprechaun," Beth told him, stroking the predictable cleft in his chin. "Cleft-chinned smithy of my soul."

But here they were, in the real Ireland, beyond the litter of Claddagh rings and *Erin go bragh*, the high-stepping of *Riverdance* on videocassette. Beth joined the long line for citizens of other countries, mostly Americans. Elderly members of a tour group were loudly exchanging greetings: "Top o' the morning to ye." The customs agents in their booths looked upon everyone, Beth thought, with unchanging expressions of glum suspicion. Maybe they didn't like such smarmy American aping of Irishness. Eamon himself hated Saint Patrick's Day, with its green-beer drunkenness and plastic bowler hats. Once, she had gotten him a card with a shamrock on it,

and he'd laughed, but it hadn't been the laugh she'd wanted.

They would be staying at the house of Eamon's father, Paddy, the only place unpopulated by the brood of children his brothers and sisters had produced. Beth wished for a bed-and-breakfast, someplace tidy and uninhabited by decay. She pictured Eamon's father as a skeleton propped up in a corner, a death mask haunting a chair. Her grandfather had recently died after years suspended in dementia, as if in some viscous, clotty fluid. At the end he had thought he was a conductor on the Long Island Railroad, and then a baby who couldn't get enough to eat. Beth had held his head up while her mother spooned strained bananas into his mouth, the two of them cooing at him in the language of babies, all vowels. It was the closest she'd ever felt to her grandfather. Hadn't she once hoped that she and Eamon might find, in the sweaty, wordless aftermath of sex, a place like that, where language was no longer even necessary?

On this trip Beth would translate herself like a language, make of herself something as legible as block letters. She grinned at the customs official when she handed him her passport, and was disappointed when he didn't bother to wink or tell her to enjoy her stay in Ireland. Near the baggage carousel she found Eamon squatting on their suitcases and smoking a cigarette. "John Joe must've had a desperate head on him this morning," he said. He held up the keys to the car he'd rented. "We're on our own."

Driving to Eamon's home town, Beth fretted. She clipped and unclipped the barrette in her hair, put on lipstick and then rubbed it off with a napkin, needled Eamon with questions. How Catholic was his family? Would his family mind that they weren't married? Would they disapprove of her?

"For feck's sake, Beth," he said. He pointed to the green-and-yellow checkerboard flags flying in front of all the houses. They had entered his county. The All-Ireland Gaelic football final was coming up, he told her. No one would care if she were a one-legged Buddhist. Beth had noticed a lot of talk about Gaelic football in *Speak Irish Now*, much of it accompanied by cartoons depicting disgruntled spectators in striped jerseys. From what she could gather, this sport combined elements of soccer and American football, with a bit of dribbling the ball thrown in. "*Ní bhuafaidh siad sin cluiche go deo*," one character said to another. "They'll never win a match."

She had thought the scenery—cows blinking slowly in their pastures, the hills in their patchwork forty shades of green—would calm her, but Eamon whipped so quickly around turns that her body set up a lurching metronomic rhythm. Finally she saw a crumbling stone castle and a small shop with a sign that read PAWS-A-WHILE. Outside Paws-A-While someone had hung a handmade sign that said SALE MANURE.

"We'll go see Paddy first," Eamon said. He swung the car into a development signposted AVONDALE ESTATE. The word "estate" flooded her with a sense of largesse. As a child she had kept a pony in a small stable behind her house. One af-

ternoon, in a moment of pure misunderstanding of her own motives, she had encouraged it to bite her. The pony had not seriously injured her, but not long afterward her mother sold it to the parents of a boy about her age. The stable had never been used again, except for trysts with boyfriends and a few unfortunate incidents with schnapps.

She peered out at the squat gray two-story apartment buildings, row upon row of attached housing. Someone had draped all the hedges with green-and-yellow plastic banners. Checkerboard flags fluttered outside every apartment. A two-page color newspaper photo of the football team had been pasted on several windowpanes. UP MEATH was scrawled in the dust on the backs of some parked cars, BOO MAYO on others. From a second-story window a Meath jersey twisted on a hanger in the breeze.

"Jaysus, the atmosphere is great," Eamon said.

From the center of Paddy's yard a large bush shaped like a lopsided person waved, a flag jutting from a leafy fist. A green-and-yellow cap had been placed on top of the bush at a jaunty angle.

"Jaysus, that's great," he said again. He kept shaking his head and smiling. Beth found herself possessed by a wish, for the first time in several years of courtship, to tell him to shut up. He suddenly seemed to her parochial and quaint, whereas in all the time she had known him, he had seemed charming and quaint. The sculpted bush was dumb. She felt embarrassed for the people with the jersey hanging in their window.

They found Paddy watching television and eating tiny squares of cheese-and-tomato sandwich off a cutting board on his lap. "Beth, is it?" he asked. He hugged her and said she was lovely for a Yank. Tea and cigarettes and sandwiches were offered all around, the sandwiches so heavily peppered that Beth's mouth felt sandy. It unnerved her that Eamon called his father by his first name.

AFTER a day or so the jet lag receded, but Beth still felt soiled and disoriented. Paddy's house did not seem to have any proper heat source. The shower head produced only a forlorn trickle. On the third morning she woke early and decided to make the tea. A lacy string of cobwebs stood between her and the inside of the china cabinet, where she could see a stack of teacups and a bottle of green liquid labeled Fairy Soap.

She was trying to decide whether to put her hand through the cobwebs when Paddy joined her. He was a small, trim, vigorous man, despite a persistent wheeze that often escalated into fits of coughing. Eamon's sisters had spoken as if Paddy were winding down toward his last days, but he looked bright with life for someone who had suffered a pair of heart attacks. "You don't smoke," he said, holding out his pack of cigarettes nonetheless, as if Beth might suddenly change her mind. "Do you take a drink?"

"Oh, yes," she said. "I like a Guinness."

This seemed to cheer him considerably. "A lovely pint of Guinness, with a creamy head," he said. Now hungry, apparently, he took an unlabeled glass jar from the refrigerator and began to feed hurriedly on its contents. Beth smelled vinegar.

At lunch, which he called dinner, he peeled potatoes with his hands, making a pile of brown jackets on a saucer in the center of the table, and placed them in Beth's bowl.

When he was a boy, he said, everyone squatted in the middle of the floor and ate their potatoes out of the same big bowl.

"The bollocks is making things up again," Eamon said.

Once, at an Irish pub in Manhattan on Saint Patrick's Day, three Irishmen who claimed to be security guards at a tampon factory in Hoboken had bought Beth drinks. Late in the evening, drunk, she had come out of the bathroom and heard

them speaking to one another in a flat nasal accent that she immediately recognized as an imitation of her own. In that moment she had hated them, for their in-jokes, their unwavering nationalism, their milk-white skin and unabashed poverty, their habit of talking over and across her in Irish, a language no one else knew or cared to know.

"Do you believe in the hereafter?" Paddy asked.

Beth saw that she had ploughed through all the potatoes he had given her. "I don't know," she said.

"Eamon says you're Jewish."

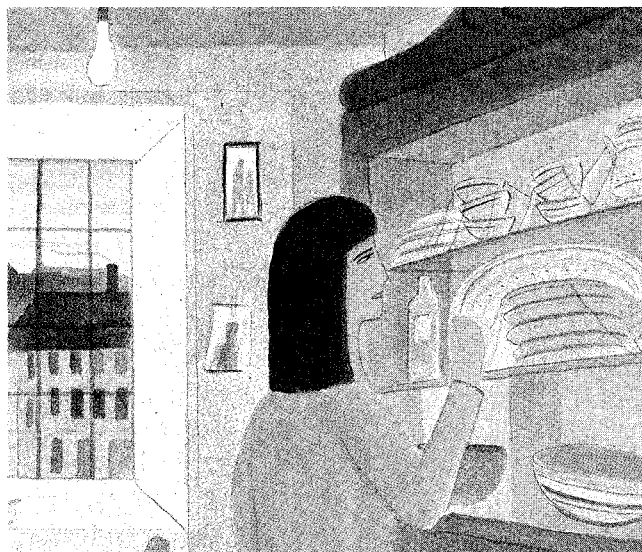
"Not really."

"What's that? Were you not born Jewish?"

"I was just born," Beth said.

He offered her his jar of pickled onions. Three still lolled at the bottom, submerged in murky vinegar like tiny preserved heads. "Try them," he said, beaming at her. "They're lovely." With one hand he traced the route from his throat to his stomach. "Next time I'll come back as a pint and go to a good home."

"Next time I want to come back Irish," Beth said. She



wanted to be a citizen of a country with its own enviably embarrassing cultural identity (the cheerful, capering drunk), its own universally recognized songs and symbols and history ("Danny Boy," shamrock, famine), its own unpronounceable language cluttered with consonants. She pointed to the only things in the room whose names she could remember. "*Cupan. Taephota.*"

Paddy winked at her. "*Níl me ag caint Gaelige.*"

"You must have learned it in school."

"Sure, now, we were too busy fighting the Norsemen in those days to waste our time with the likes of school." He winked, shrugged, and peeled more potatoes into her bowl.

LATER, at the Haggard Inn and then in the lounge of the Judge and Jury, Beth was persuaded to do a Jewish accent. She imitated her mother haranguing a saleswoman at the Clinique counter in Bloomingdale's. "In the past few years my poas have gotten very large. Do you have something for large poas?" Then her parents arguing over a bad investment her father had made in someone's nephew's foray into frozen pizza rolls. Then her father complaining about his sciatica. Most of this Beth invented as she went. Her parents

VENUS OF WILLENDORF

She's big as a man's fist,
Big as a black-pepper shaker
Filled with gris-gris dust,
Like two fat gladiolus bulbs

Grown into a burst of twilight.
Lumpy & fertile, earthy
& egg-shaped, she's pregnant
With all the bloomy hosannas

Of love-hunger. Beautiful
In a way that forces us to look
At the ground, this squat
Venus in her braided helmet

Is carved from a hunk of limestone
Shaped into a blues singer.
In her big smallness
She makes us kneel.

—YUSEF KOMUNYAKAA

were mild, box-of-matzo-in-the-cabinet Jews, their income modest by Long Island standards. Still, Eamon's family fanned out on either side of her, roaring. Eamon roared.

"But they don't really talk like that, sure they don't," his sister Siobhan said.

"Sure they do." Siobhan's husband, John Joe, rested an elbow on a large fold of belly. He had an ulcer and kept singing "Desiree"—not the whole song but just the word. "Remember that show *Rhoda*?"

Everyone agreed that Beth sounded like Rhoda. Proof from television seemed to settle the matter. In America association with television seemed to discredit facts, but in Ireland, Beth thought, television seemed to stand as that which validated all claims.

"You should see the house where Beth grew up," Eamon was saying. "Like the mansion on *Dynasty*."

"Is it really?" Siobhan asked.

"That would be a gross exaggeration," Beth said primly, but nobody heard her. Eamon was describing the maid's quarters, the stable, the billiard room with the full bar, the ice machine, the monogrammed highball glasses.

"But there's nothing *in* the stables," Beth insisted. "The stables are falling down."

Now they looked at Beth differently: inhabitant of mansions, owner of highball glasses. She had meant to distance herself from that, to align with Eamon, but now she felt herself to be a species apart from him and his family, with their forlorn and graying teeth, their tiny identical row houses, the Waterford crystal from their weddings everywhere locked up and dusty, their unselfconscious public singing. Two young men with fiddles had wandered into the pub and begun to play. People sang along between swigs of stout, mispronouncing most of the words. They said "tree," for instance, when they meant "three." She wondered if she should drink more.

She drank, the stout a brogue's lubricant. It made her recoil from the sound of her American accent reverberating inside her head—the nasal monotony of it, the apathetic *blah blah* of someone middle-class, cushioned by the class below her. Someone raised by a mother who had time to worry about pores. Someone who could indulge a whim and get bitten by a pony or get drunk on melonberry schnapps. She had no tragic history to recall—only a road back through memory filled with the discarded gifts and purchases of an American childhood.

John Joe was telling a story about going out for Chinese with a crowd in Navan. The taxi driver who took them home had gotten paid twice, by him and then by Siobhan.

"Eejits," Siobhan said, as if she were commenting on the behavior of some other drunk and foolish couple.

"Drink up, lads," the bartenders were calling.

Though it was after midnight, the streets were busy with people walking home from the pubs, arm in arm or in unruly, shouting clusters. Eamon draped one arm around Beth's

neck, leaning heavily on her. They passed a butcher shop. The scarlet sides of meat hanging in the window affronted Beth. She had wanted to ask Eamon about the shops he had gone to as a child, the architecture of the Christian Brothers School, the fields where he'd played Gaelic football. She'd meant to ask about a statue of some English lord up by the hotel—an early colonizer?

"Oh, that," Eamon said. "They've been trying to blow that up for years." He gestured toward his family, walking on ahead in the joyous and disorganized zigzag of drunks and children. "We never get around to anything."

"You didn't have to say that about *Dynasty*," Beth said.

"They liked your accent. They liked 'poas.'"

"They liked 'poas,'" Beth said. "Great." She felt glum and violated, like a bed someone had pissed in by accident, or a public pool with a warm spot.

They went back to Siobhan and John Joe's house, a messier twin of Paddy's. John Joe, complaining of his ulcer, lay on the couch and drank milk from the carton. He was still singing "Desiree." Siobhan clopped from one room to another, shouting at everyone to keep it down or the girls would wake up. The girls woke up and wandered in, barefoot and squinting, tangles in their hair. They nodded when Siobhan introduced them and had to be told to shake hands with Beth. The taller one, Nuala, prodded John Joe with a foot. "Drunk again?" she asked. "Did you go to McCormack's? Have you a packet of crisps for me?"

The girls showed Beth their room. It seemed to be a converted storage area, with flimsy walls they had written on in pencil. More UP MEATH. More BOO MAYO. "If Meath win, everyone gets the day off from school, but if Mayo win, we don't get the day off but the boys' school does," Nuala said. The younger girl, Ciara, sucked her thumb and asked Beth if she could touch her hair.

"You're drunk too," Nuala said.

"You look like your father," Beth said.

"But not fat."

"And not drunk," Beth said.

That night the Guinness and black-currant made her hallucinate. She saw the world in triplicate, three turning orbs. Three of herself bought scarlet sides of beef in the butcher shop from a man without a tongue. At the top of a staircase she stood in mink, white diamonds dripping from her breasts like milk. The airplane passenger with the dandruff-covered shoul-

ders grabbed her and cackled sour syllables into her mouth.

She felt a presence next to her, an arm slung around her waist. She got out of bed. The long tiled hallway felt as slick as a frozen pond under her feet. When she finished peeing, she pulled the flush handle while still sitting on the bowl and felt air whoosh up between her thighs. The ancient plumbing chortled as the water went down. She crossed back to the room where she and Eamon slept and climbed in beside him. He slept sprawled out when he'd been drinking, a limb in each direction. She pushed the cold soles of her feet against his leg. He yelped and turned on his side.

"Do you still love me?" she whispered to his shoulder blade. The Guinness had receded, leaving her head trapped in an aching, sugary halo. She remembered the cartoons of men with sore heads, each one holding his pint of the black stuff. Language primers also liked illness. A headache was *tinneas cinn*. Was *cinn* pronounced like "sin"?

"Get some sleep, Beth."

He reached for her hand and held it hard against his hip.

In the morning she found Eamon and Paddy downing tea in the living room. "It's herself!" Paddy announced. Eamon wore the green-and-yellow cap that had been on the bush in the yard. He tossed her a Meath jersey.

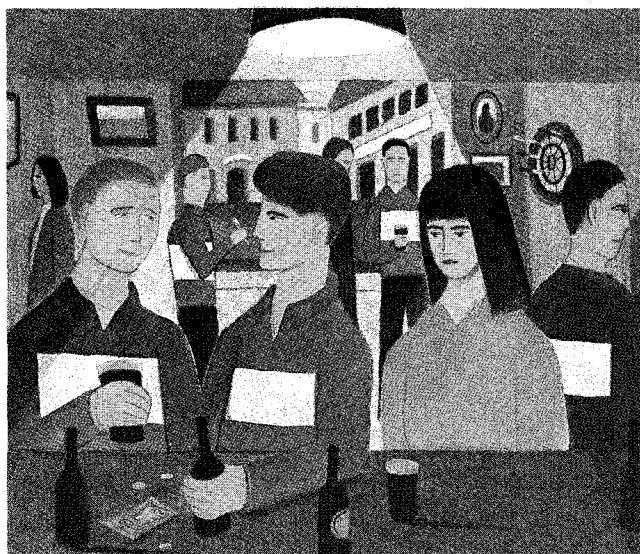
"I'm not wearing this." She threw it back at him and went to put on her own clothes.

"You'll look like an eejit in cashmere," he warned.

She had not showered in two days—a record for her. She sniffed her armpits. They smelled like the microwaved kasha she'd gotten on the plane. She felt as if she were soggy grain, fermenting.

DUBLIN bustled with pregame drunkenness, everyone spilling out of the pubs in their green-and-yellow jerseys. "This is a Meath pub," Eamon said as he elbowed his way in. People rebounded off Beth, flecking her sweater with spots of stout. After drinking two pints of Guinness she let Eamon help her pull the Meath jersey on over her sweater. "You look lovely," he said, and kissed her, stuffing his tongue into her mouth.

She trotted along behind him to the stadium. Their tickets were for an area called Hill Sixteen—a section with no seats, only low cement walls to lean on. "What if we get trampled?" she shouted, but the cheering and roaring drowned her out. Mary Robinson came out dressed in purple silk, and



everyone stood for the national anthem. They sang in Irish—loose, lilting syllables that Beth couldn't form. She still often made the mistake of walking into the men's room, labeled FIR. Women's was MNA, which she always transposed into MAN.

Eamon shouted all the way through the match. Beth had trouble keeping track of the ball. Meath pulled ahead by a point in the last two minutes of the match. "Brilliant," Eamon breathed. His eyes glinted with tears. In front of them two men with pompons on their hats threw themselves into the crowd below. Eamon was hugging the man beside him and weeping.

"Jesus, Eamon. Pull yourself together." Beth patted him on the back. She had never seen him weep before. It made her want to drink.

They rode home with Siobhan and John Joe. The tradition, apparently, was to stop at pubs along the homeward route. Replays were being held in every hamlet, each moment of the game worked over in murderous detail. "Sure they won, but they played crap," Siobhan said.

The Guinness was starting to blur the edges of things. Beth was starting to like life better this way—everything bleeding together. "They played crap," she agreed.

From under a straw hat that seemed to be gradually unraveling on her head, Siobhan offered her a wavering, contentious look.

Beth had been practicing her accent, the way she practiced Irish words and "poas." Usually she practiced in her head. But something had unhooked in her. A bolus of consonants pushed together stuck in her throat, a halitosis of want, for after all, she wasn't, would never be, Irish. "I didn't mean it like that," she said.

"Go get a round from the barman," Eamon said. He pushed a roll of bank notes into her hand.

While she was up at the bar, singing began—first in scattered clusters, then a chorus, then a ragged harmony. The crowd, surging up for drinks, pinned her against the bar. In the corner Siobhan put one arm around John Joe and the other around Eamon. A man with an accordion climbed up on a table and began to play with restless, fanatic energy. He lay down on his back, still playing, and gulped a pint of Guinness as it was poured into his mouth from above.

OVER the next few weeks things began moving more and more slowly, as if drifting in the Liffey, rife with pollutants. Each night Beth and Eamon went with Paddy to Siobhan and John Joe's for a meal, usually dark-brown and stewed. Afterward they lingered for hours at the table with multiple cups of tea, any uneaten food congealing on the

plates in front of them. Beth became convinced that the nightly pints of Guinness, as opaque and dense as oak, had gone solid in her body, shellacking her organs. Her limbs stiffened; she had to mind them when she walked through doorways. Her Irish wasn't coming along as she'd expected. People spoke it in jest and secretly, muttering quickly, reminding her of drug transactions she'd seen on the Lower East Side of Manhattan.

It should be noted that the English language is weighted toward action, control, independence, she read in her primer.

"I am happy."

"I am sad."

In contrast, the Irish language explicitly recognizes distinctions between action and patience.

táim go brónach "I exist sadly."

tá brón orm "Sadness exists on me."

A stubborn clump of rain clouds gathered over Eamon's town and stayed as if pasted there. Gray sheets of rain and sleet fell for days. The weather began dueling with the Gaelic football win as a topic of conversation, but no one seemed daunted by all the *flichshneachta*: women walked out for their groceries in it with little more cover than rain hats; children tumbled on the greens with their soccer balls, oblivious even of downpours. Beth thought about sadness existing on her, a beige miasma, a misty blight. She felt her soul assailed, soaked through, retreating into its crawl space. The peat that Paddy brought in to burn in the fireplace steamed when he lit it. Even the food acquired a musty taste—musty cheese on stiff bread, flat Lucozade that Eamon and Paddy never capped tightly enough, so that it lost its fizz and tasted to Beth like glucose solution.

At night she huddled in bed and warmed her hands on Eamon's shoulders, a Girl Scout tending a tiny fire. "We can't stay here much longer," she said. "Rent is due back home in a week."

"We can wire it from here."

Outside, rain clacked against the windows. In the past few days the hills around the town had gone deep and then deeper green, a hegemony of green.

"I want to go home," she whispered. "Do you want to stay?"

They lay for a long time like that, her hands at his back. Then he got up and left the room, returning with a carton of milk. He gulped from it and handed it to her. It had started to sour, the first inkling of curdle.

"It's gone off," she said, gagging a little as some of it slipped down her throat.

He took the carton from her and lay back on his side of the bed. She heard the milk slosh into his mouth, a dumb sour ocean between them.

"Then stay," he said. "Then go." ☘

THE INVISIBLE WOMAN

by JESSICA HORNIK

In the hospital for the terminally unseen,
she resorted to screaming,
but the sense of the things she screamed
got lost—the voice being
an unreliable narrator of the scene
of the mind. Though she had committed
herself, she had been driven
to her condition by others.

The father, who had died before she was even
seventeen, left her to imagine
the earth as the thing separating
the dead from the living,
a curtain so much denser and darker
than darkness. “The dead don’t see
us, and we see them only in dreams”
was one of the things she screamed.

Friends, neighbors, acquaintances—
they saw nothing at all
unusual in her, nothing, certainly,
to which the term “eccentric” could be applied.
Moving among them as one of them,
she wondered if love of one’s fellows
was, in fact, an insidious form
of self-betrayal. And all the sundry people
she spent her life’s days with—tellers
at the drive-thru, supermarket cashiers,
UPS men, mechanics . . . oh, the conspiracy was grand
to turn her into what she seemed!
“Though not of my choosing,
invisibility is my grand theme”
was one of the things she screamed.

What about the husband?
Like two flashlights whose beams
are shined into each other
head-on with the faces touching,
the intensity of their twinned brightness
left but a faint rim of light,
like an echo, for the world to see.
Her love for him, and his for her, was, then,
another thing about her that went unseen.
And the baby? He saw his mother.
That was what she was,
as far as his eyes could see.
That at the age of, say, twenty-three
he would not remember the love
she had lavished on his one-year-old self
drove her to an absurd despair.
His future could not behold
her present. And yet, when she peered down
the river of his being, she saw no choice
but to pour herself in.
“If I loved him to any greater extreme,
I would disappear”
was one of the things she screamed.

She tried to laugh at herself
and her ridiculous need:
to free the soul from its private quarters
of personality, to let its within and without
be the same thing—like a water lily
yoking above and below to a single beauty.
In the hospital for the terminally unseen,
she settled in like a deep-sea creature
on the floor of a vastness, accustomed
to the pressure and its attendant lack of light.

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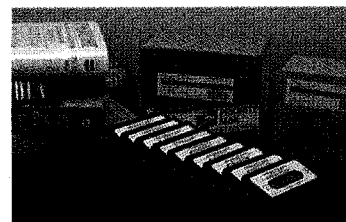


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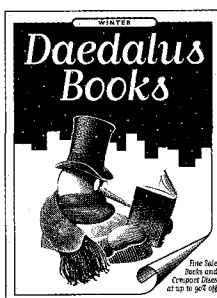
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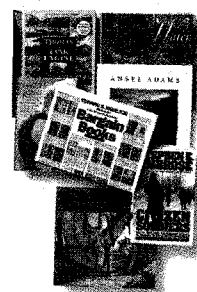
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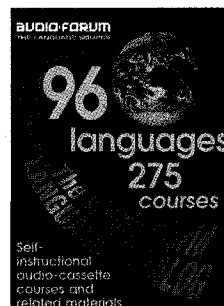
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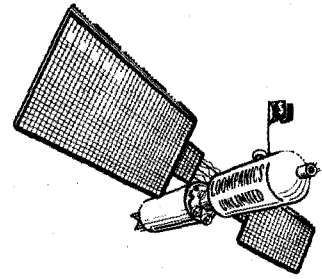
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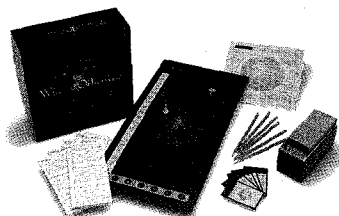
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Could Mad-Cow Disease Happen Here?

by Ellen Ruppel Shell

*Britain's horrifying experience
taught us a few things, but perhaps not enough
to preclude an outbreak of our own*

THE recent British epidemic of mad-cow disease, and the twenty-seven cases of fatal human disease associated with it, have led to the slaughter of 3.7 million cattle and the near destruction of Great Britain's cattle industry. Observers have suggested that the outbreak was a factor in the toppling of John Major's Tory government. Mad-cow disease continues to haunt Britain, and Europe in general, even though the European Community, having made extraordinary efforts, appears to have contained the outbreak. The latest figures show that the incidence of the disease in Britain is less than a tenth what it was at the epidemic's height, when more than a thousand new cases were being diagnosed in cattle every week. Still, the pummeling of the British beef industry continues. Last December the British government banned the sale of most cuts of beef on the bone, including ribs, T-bone steaks, and oxtails. With (as of this writing) a worldwide ban on British beef exports, and a severe decline in domestic sales, the price of British beef has fallen to its lowest level in twenty years. Cattle tainted by association with the disease are quickly disposed of.

A similar epidemic in the United States would be even more catastrophic. Britain before the outbreak had roughly 10 million cows; we have more than 100 million. Cattle and dairy farmers are at the heart of thousands of rural economies, and earn approximately \$54 billion a year through meat and milk sales; more than \$100 billion in additional revenue is generated by related industries and services. No wonder, then, that when the British epidemic hit the front pages, two and a half years ago, the U.S. government reacted emphatically. The

Food and Drug Administration, the Centers for Disease Control and Prevention, and the United States Department of Agriculture rallied to reassure us that there was no sign of the disease in this country. Yet most of the conditions thought to have led to the epidemic in Britain also existed here. Despite official protestations to the contrary, and despite regulatory changes recently implemented, some of them still do. Given current agricultural practices, avoiding an American outbreak of this disease may be only a matter of chance. The question is, how lucky do we feel?

As those who followed the horrifying unfolding of the British epidemic will recall, mad-cow disease is one in a category of progressive neurological disorders called transmissible spongiform encephalopathies (TSE). The fatal human nervous-system disorder Creutzfeldt-Jakob disease, or CJD, is also among these, and the panic in Britain began when a new variant of this gruesome affliction was discovered in association with mad-cow disease. Many things about TSE in general, and the relationship between mad-cow disease and CJD in particular, remain unclear. But that's hardly reassuring. The chain of reasoning that should make us worry begins with the fact that the economics of our modern meat and milk industries dictate that many farm animals get food supplements derived in part from rendered animal protein. The rendered animal protein they eat may expose them to the TSE infectious agent, which is thought to have the potential to cross the species barrier between animals, even into human beings. TSE is 100 percent fatal, and in human beings takes up to thirty years to manifest symptoms. Thus if,

however unintentionally, we encourage the spread of TSE infection, a great deal of damage will be done before we have visible signs of the problem.

It makes sense, then, that if we make mistakes in our efforts to prevent a new variant of CJD in this country, they be mistakes on the side of caution—perhaps a higher degree of caution than we have so far exhibited.

Economies of Scale

IN the United States, as in Britain, most dairy and cattle farmers are small entrepreneurs struggling to maintain a fading way of life. Larry Johnston, a seventy-four-year-old dairy farmer in Corvallis, Montana, has engaged in this struggle for more than thirty years.

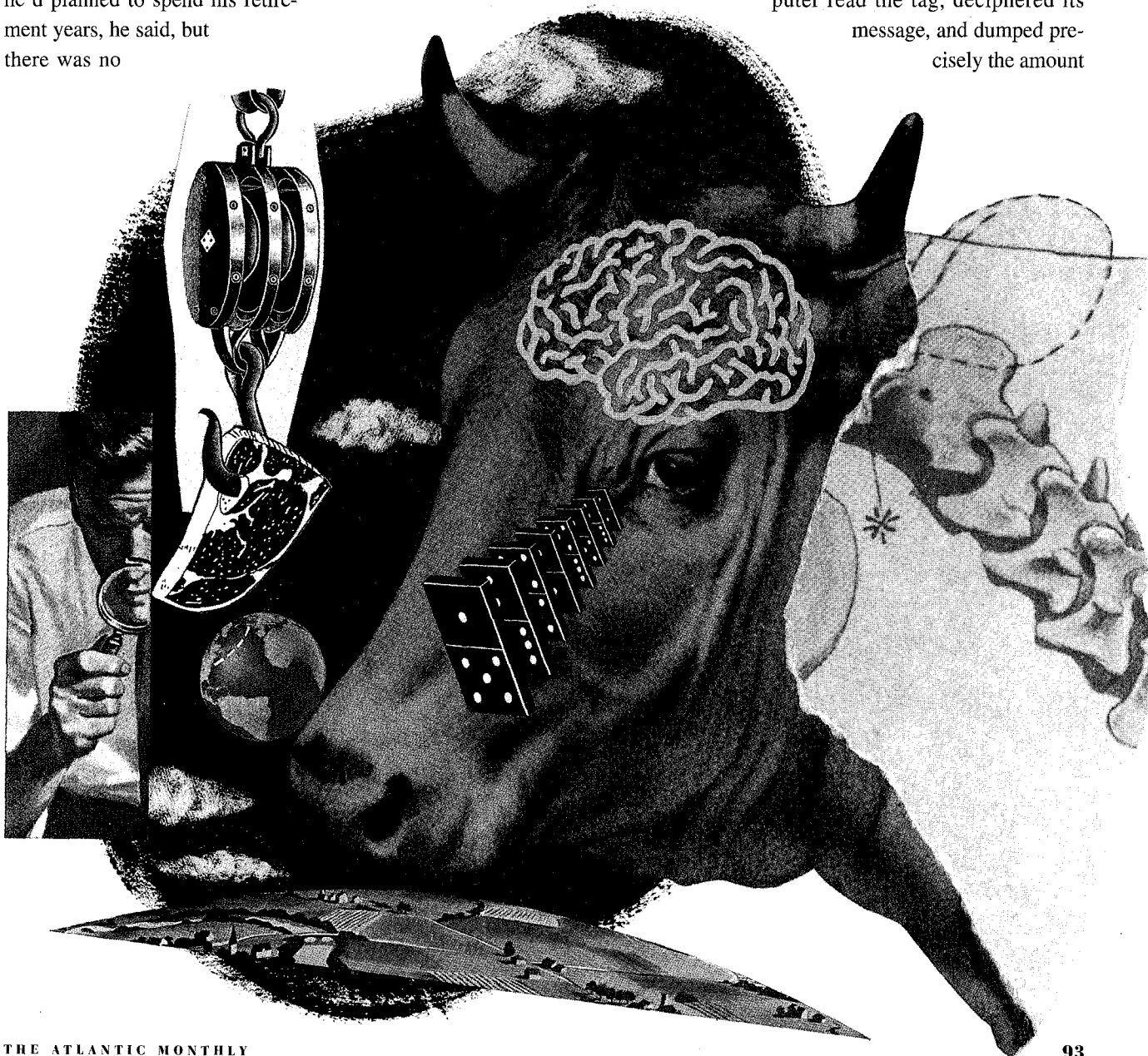
When we met, one overcast morning in June, Johnston was crisply dressed but tired. Over breakfast he told me that he'd spent the previous six hours helping a cow to deliver its first calf. Birthing calves was not the way he'd planned to spend his retirement years, he said, but there was no

way around it. His daughter and son-in-law were on vacation, and the hired help, though reliable, could not handle a difficult delivery. "We're just grateful that they show up," he said. "You can't demand professionalism at five dollars an hour."

Johnston would like to pay more, but he can't. Rummaging through a pile of papers, he found a balance sheet and ran a finger down the columns. The farm had lost \$57,684.30 in the previous ten months. "My accountants tell me I have one smart choice," he said. "That's to sell this place and retire to a beach in Hawaii."

From the look of things, Johnston and his family have done just about everything to make their 112-acre operation pay, including feeding their cattle scientifically. Each cow's ration is determined using a formula that takes into account its weight, age, and milk output. This information is coded and integrated into a computer chip embedded in a blue tag that the cow wears on a necklace. Johnston walked me down to the feedlot for a demonstration. A six-month-old calf

stood in a pen, its blue tag dangling. A computer read the tag, deciphered its message, and dumped precisely the amount



and kind of feed the calf had coming to it. The setup reminded me of something out of *The Jetsons*, the science-fiction cartoon. It also looked like an extravagance—but Johnston told me otherwise. Without this precision he'd be out of business. He said that when he became a dairyman, a good milking cow gave maybe thirty-five pounds of milk a day. Today that cow, if healthy, would immediately be sold at auction and ground into hamburger and franks, as all healthy dairy cows are eventually.

"Our top milkers give up to a hundred and thirty pounds of milk a day," Johnston said. "We feed the best alfalfa we can buy, from Townsend, Montana, or Mud Lake, Idaho, or eastern Washington State. A company representative [from Purina Mills] works out the formula depending on the quality of our hay. And we have a special high-power supplement for the high-producing cows."

Johnston had paid \$69,581.57 for feed supplements in the previous ten months alone, but he figured it was money well spent. Without the supplements, he said, milk production would slow down and his balance sheet would look even worse. He has seen a lot of farms go under. From 1987 to 1996 the number of milk-cow operations in the United States dropped by 44 percent, and the number of cows by 11 percent, while milk production increased by eight percent. Breeding, hormones, and drugs have made America's dairy cows veritable milk machines—hungry machines. I asked Johnston for a look at the supplement, and he took me to a side barn, where a pile of it spilled out from under a blue tarp. It looked like rabbit food and smelled vaguely of grain and dung. I asked him what was in the stuff, and he said that he wasn't sure but he knew why I was asking. "You want to know if I'm

Drug Administration banned the practice of feeding to cattle or sheep almost anything containing the meat, bone, or fat of mammals other than pigs and horses (exceptions made because the FDA contends that these animals don't get TSE). Some observers are skeptical of this ruling, in part because the FDA has allotted the equivalent of only seventeen full-time inspectors to 14,000 facilities involved in feed production and rendering—the process by which animal by-products, such as meat, bone, and fat, are melted down and separated. Another objection is that the feeding of cows' blood to cattle continues to be permitted. Although TSE in human beings has not been shown to be transmitted by blood, evidence of TSE has been found in the blood of experimentally infected animals.

The skeptics argue, too, that there is no way to prove that the species barrier cannot be surmounted, and the current rules allow even animals known to be infected with TSE to be fed to pigs and chickens, which can in turn be fed to us. Or they may be fed to cattle and sheep. A study published in April in the scientific journal *Nature* found that TSE from one species can be carried by another species without making the carrier sick. The authors concluded that "the results presented here would strongly favour a decision to stop feeding ruminant-derived products to all animal species"—in particular, "domestic animals such as poultry which are raised for human consumption."

American dairy farmers have fed their herds supplements containing fat, bone meal, and blood and meat protein for fifty years or more. Larry Chase, an associate professor of dairy-cattle nutrition at Cornell University, says that cows fed on grass, hay, alfalfa, and other forage produce just ten to

fifty pounds of milk a day, and that "you can't get a reasonable amount of milk without supplement." Protein supplements can be made from almost any organic material, including corn and soybeans. They may also contain rendered animal by-products. When I called him, Chase took a minute to check the commodities market and found that animal by-products were going for about the same price as soybeans that day.

Since animal products deliver more protein per ounce than vegetable products do, it's no surprise that many farmers have turned to animal-based food supplements. "The amount of rendered animal protein produced in this country is staggering," Chase said. "And from what I understand, ten to fifteen percent of it goes into cows"—an estimate that he believes holds true today.

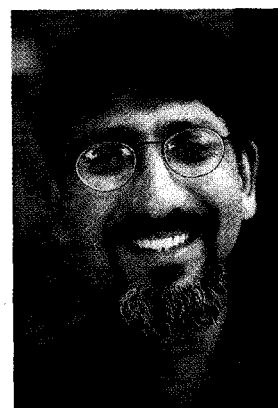
Feeding cow to cow may sound bizarre, but from a nutritional standpoint it makes perfect sense. Richard Race, a research veterinarian at the National Institutes of Health's Rocky

**Many diseases of human beings—measles, influenza—
got their start in animals. Clinical and
experimental evidence has led many scientists to suspect
that mad-cow disease has made the jump as well.**

feeding cow to my cows," he said. "Truth is, I don't know."

A call to Johnston's supplier, Bill Shine, who at the time was the local district manager for Purina Mills, determined that the feed was custom-made for Johnston's cows, of soybeans and canola, animal fats, meat-and-bone meal, and blood meal. Shine didn't seem to know whether the meat-and-bone meal came from cows, but he did say that "regulatory issues" would prevent the inclusion of beef in cattle feed in the future. Two months after my visit to Johnston the U.S. Food and

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Mountain Laboratories, in Hamilton, Montana, explains that animal protein is more complete than most vegetable proteins, and that the best protein an animal can eat, metabolically speaking, is derived from the tissues of its own species. "Theoretically, the best protein for a dog is dog, for a cat is cat, and for a cow is cow," he says. "For that matter, the best protein

One may well ask, then, why most mammals approach cannibalism as, at best, a last resort. Why, for example, don't competing males kill and eat one another, and why don't most mammals eat their dead? Scientists can only speculate that such behavior bodes ill for a species' long-term survival. Disease spreads more easily within than among species, and a

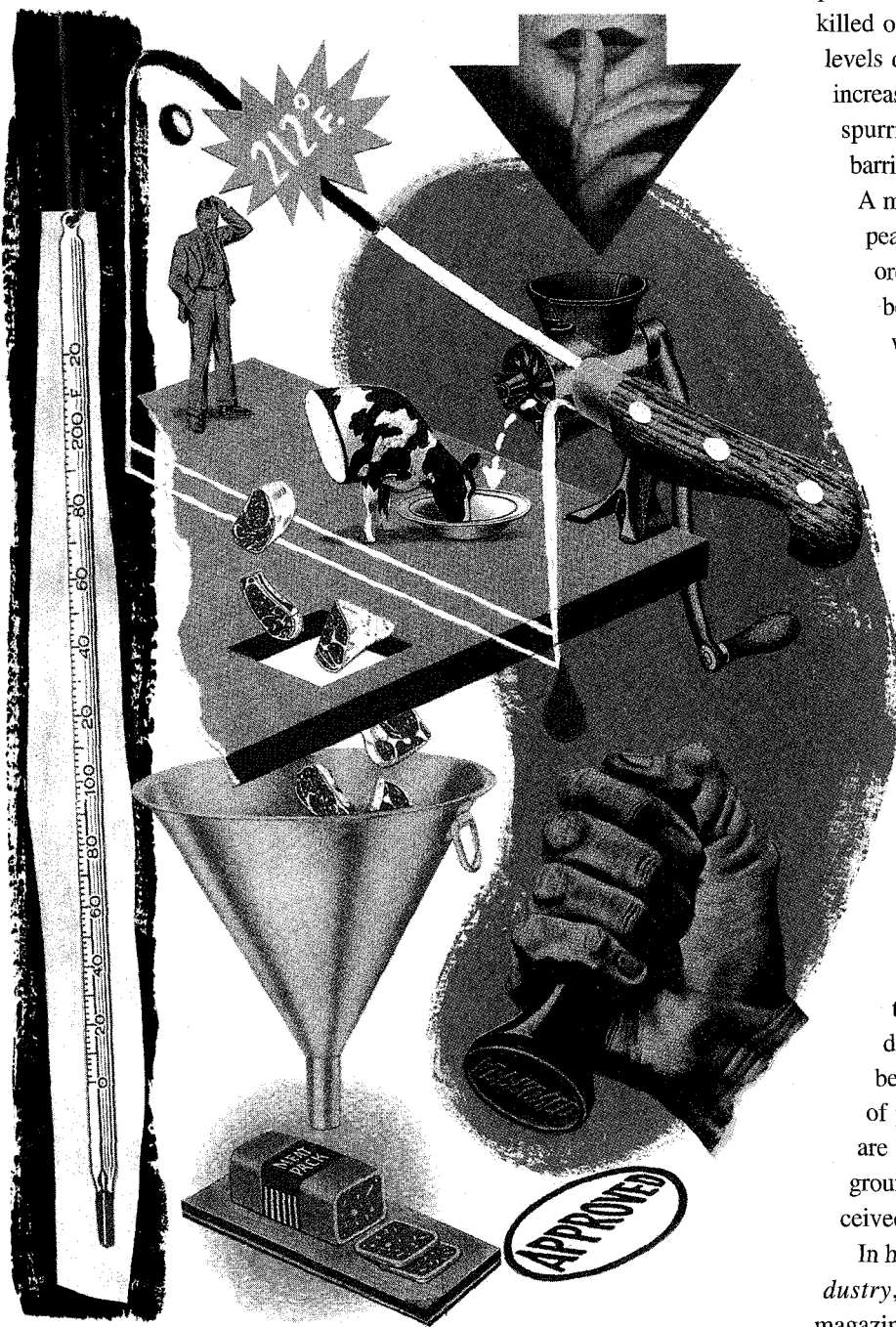
species that eats its own has a higher risk of being killed off by disease. Cannibalism also amplifies levels of infectious organisms, concentrating and increasing their presence in the environment and spurring their chances of hurdling the species barrier and moving into another, related species.

A microbe that normally infects sheep fed repeatedly to, for example, cows may mutate in order to accommodate to its new host, thereby becoming the agent of a cow disease. This is why the Food and Drug Administration has banned the feeding of most mammals to cows or sheep and other ruminants and has stipulated that feed derived from ruminants bear the warning label "Do not feed to cattle or other ruminants." Rendered products of cow and sheep carcasses will, however, continue to be manufactured and labeled as feed for hogs, chickens, and other farm animals—a practice forbidden in Europe in 1996, when it became clear that material labeled pig or chicken feed was finding its way into cows and sheep. Gloria Dunnavan, the director of the Division of Compliance at the FDA's Center for Veterinary Medicine, says that although the agency is looking for 100 percent compliance on the regulation, it is not 100 percent optimistic. "We've developed an enforcement strategy, but it's been quite a challenge," she says. "Not a lot of people in the rendering and feed industry are used to seeing an FDA presence. But the groundwork is being laid, and to date we've received a lot of cooperation from the industry."

In his 1978 book *Rendering: The Invisible Industry*, Frank Burnham, the editor of *Render* magazine, described his business as having been "almost invisible for more than 150 years quietly

doing its thing on the back streets of America." Indeed, today it is very difficult for a journalist to gain entrance to a rendering plant, but a clandestinely made videotape of a sampling of plants, which was provided to me by the Government Accountability Project, a public-interest law firm in Washington, D.C., portrays a series of altogether unsavory places where dead cats and dogs, road kill, the occasional circus an-

for humans is human." Donald Beermann, a professor of animal science at Cornell, observes that feeding animal protein to cows significantly accelerates their rate of growth. And, he says, animal activists are wrong when they claim that cows are strict vegetarians. "It's not uncommon for a cow giving birth in the field to eat its placenta," he says. "Makes sense. Nature is not in the practice of wasting valuable nutrients."



imal, and the diseased carcasses of farm animals are mixed into a ghastly, belching stew.

Swift and Company, the Chicago meatpacker, was the first to mass-manufacture rendered protein and fat as animal feed, at the turn of the century, but the use of such feed really took off in Britain during the Second World War, when it became difficult to import vegetable feeds from abroad. In Britain cows were fed as much as four pounds of rendered protein a day, but in the United States, where soybeans and other vegetable proteins were plentiful, the use of rendered animal protein as feed was far less common. By the mid-1970s, however, the price of vegetable protein in the United States had risen to the point that rendered animal protein became an increasingly popular cattle feed—though never as popular as it was in Britain.

Then the energy crises hit, and the rendering industry sought to process material at lower temperatures and, in England, with smaller amounts of costly and dangerous petroleum-based solvents (solvents are not used in the United States). What it came up with was a vacuum system—a neat trick that those who recall fifth-grade science class will understand immediately. Heating water in a vacuum allows it to boil at lower temperatures. The vacuum system, though it is effective for rendering, unfortunately does not destroy all bacteria or viruses or, for that matter, the infectious agent associated with mad-cow disease. A study published in *The Veterinary Record* in December of 1995 reported that when neurological tissue infected with mad-cow agent was put through this process, the level of infectivity showed no reduction after rendering, whereas the old-fashioned high-temperature method reduced infectivity significantly. According to sources in the rendering industry and at the USDA, low-temperature rendering without solvents could well have led to the mad-cow outbreak in Britain, and it certainly has the potential to spread infection in the United States if the disease occurs here.

“Before the 1970s there was a reduction in infectious material by at least a factor of a hundred using the standard rendering system,” a scientific consultant told me. “But the new low-temperature systems did nothing to reduce infection. In England sixty to seventy percent of rendering plants switched to the low-temperature system by the early 1980s. And in the United States anywhere from one quarter to one third of all rendering plants still use the low-temperature process.”

This consultant, who declined to be named, warned that low-temperature rendering combined with the American practice of putting diseased animals into the rendering cycle was a potential threat to the public health. Although a voluntary

ban has been instituted on rendering the carcasses of animals condemned for signs of neurological disease, critics worry that such a thing cannot be completely effective—especially because many animals are not examined by a veterinarian before being rendered. “If there’s one industry within agriculture or food production that needs regulating in this country, it’s the rendering industry,” the consultant said. “The number-one World Health Organization recommendation to prevent the spread of TSE was a ban on the use in the food cycle of animals that show signs of TSE disease. Yet the FDA completely missed that recommendation, and TSE-diseased animals can still be in there. If you’re going to process animal materials, you need minimum processing conditions—for example, a standard of temperature that will kill all infectious agents. And I don’t see them doing that at all.”

What’s on Our Plates

IN his excellent *Plagues and Peoples* (1977), William H. McNeill pointed out that many of the distinctive infectious diseases of human beings got their start in animals, particularly domestic animals. Measles is probably related to canine distemper, and influenza to a disease in hogs. Clinical and experimental evidence has led many scientists to suspect that mad-cow disease has made the jump as well. The infectious agent responsible for the British mad-cow epidemic was given ample opportunity to mutate into a human pathogen. It is thought that stricken cows ground up, processed into feed, and fed to other cows created a cycle of intense infection that eventually landed on people’s dinner plates; after repeated exposure to this infected meat, a group

“Mechanically deboned” meats, found in a range of products such as hamburger and bologna, can be contaminated with bits of central-nervous-system tissue when spinal columns are plucked and squeezed.

of human beings, especially susceptible for genetic or other as yet unknown reasons, developed a human form of the illness, a variant of Creutzfeldt-Jakob disease.

CJD in its natural form was first described in the 1920s by the German physicians Hans Gerhard Creutzfeldt and Alfons Jakob. Symptoms vary, but may include loss of coordination, personality changes, mania, and dementia; death inevitably follows. It is generally said that about nine people a year in 10 million contract CJD “spontaneously”—that is, by a

means unknown—and one in 10 million does so through inheritance. Still more rarely CJD has been contracted through the transplantation of infected tissues, such as corneas, through contaminated surgical instruments, or through the injection of growth hormones derived from CJD-infected pituitary extracts. Though it has not been shown to be transmissible in blood outside the laboratory, dread of the disease is such that more than \$100 million worth of blood products have been destroyed for fear of CJD contamination. In the United States about 250 cases occur each year. Although young people can and do acquire CJD, and the first case ever described was in a twenty-three-year-old woman, the average age of onset in the Western world is over sixty. The new variant of CJD associated with the mad-cow outbreak differs clinically from the traditional form in two significant ways, both of them cruel. The old form is quicker, mercifully. And whereas traditional CJD is a disease of the elderly, the new form seems to prey on the young: the median age of onset is twenty-eight.

All transmissible spongiform encephalopathies, including

SHORE BIRDS

While I think of them they are growing rare
after the distances they have followed
all the way to the end for the first time
tracing a memory they did not have
until they set out to remember it
at an hour when all at once it was late
and newly silent and the white had turned
white around them then they rose in their choir
on a single note each of them alone
between the pull of the moon and the hummed
undertone of the earth below them
the glass curtains kept falling around them
as they flew in search of their place before
they were anywhere and storms winnowed them
they flew among the places with towers
and passed the tower lights where some vanished
with their long legs for wading in shadow
others were caught and stayed in the countries
of the nets and in the lands of lime twigs
some fastened and after the countries of
guns at first light fewer of them than I
remember would be here to recognize
the light of late summer when they found it
playing with darkness along the wet sand

—W. S. MERWIN

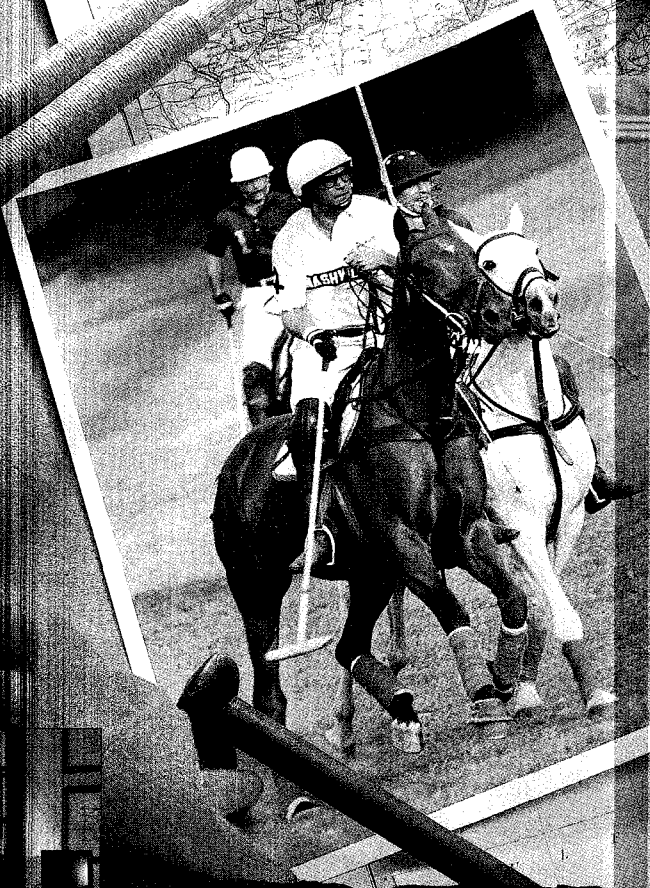
CJD, attack and destroy the nervous system of the host organism. No one knows precisely how the TSE agent infects an organism, but once it takes hold, it is unstoppable. Strains of TSE have been found in sheep, goats, elk, mule deer, white-tailed deer, mink, and cats. In sheep and goats TSE is called scrapie. Mad-cow disease is more properly called bovine spongiform encephalopathy, or BSE. In human beings CJD and two extremely rare syndromes, Gerstmann-Sträussler-Scheinker disease and fatal familial insomnia, have been identified as forms of TSE. Clarence Joseph Gibbs, who is the chief of the Laboratory of the Central Nervous System at the National Institutes of Health and an expert on TSE, says it's probable that most if not all mammalian species acquire TSE, but that this is difficult to prove, because "no one would notice a rabbit with dementia and bad balance."

Gibbs and other scientists I recently spoke with believe that all mammals that acquire TSE do so at the human rate—about one case per million. If this figure is accurate, then approximately a hundred U.S. cows come down with BSE spontaneously each year. But detecting isolated cases of BSE in American cattle herds is exceedingly difficult, in part because the cattle population is too widely dispersed for efficient surveillance. "We've had one reported case of BSE in North America—in Canada, in a cow imported from the United Kingdom," Gibbs told me. "That cow was found by a rancher who had gone out on the range to feed his herd because of a severe snowstorm. If there had been no storm, the rancher would have stayed home, the cow would have gone down, a coyote would have eaten it, and no one would have been any the wiser. Do we have BSE in the United States? The real question is, if we do, will we find it?"

The U.S. Department of Agriculture has examined the brains of only about 7,100 dead suspect cattle for signs of BSE, and about 2,000 have undergone an additional procedure required for a diagnosis of the illness. Tam Garland, a veterinarian and a research associate in the Department of Veterinary Physiology and Pharmacology at Texas A&M University, describes this number of tests as "phenomenally small." She also says that she is not surprised that no more suspect animals have been reported. "As a rancher, you're not going to haul a vet out onto the range to look at a dying animal, only to get fingered by your neighbors as the cause of plummeting beef prices," she told me.

TSE infectivity concentrates in the central nervous system, in the spinal cord and brain. And the more of the infectious material an animal is exposed to, the likelier it is to get sick. For this reason Britain has implemented a series of more and more restrictive bans from its food chain, starting with cattle brains, spinal cords, and other tissues that have been shown to contain infectious material, and now including some sheep and goat parts as well. The United States has not followed suit, and the heads and backbones of cows, pigs, and other animals continue to figure prominently in the rendering mix.

*When the king, the prince,
or the maharaja disappears,
this is the first place
they look.*



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ELECTRONIC REPRODUCTION PROHIBITED

In fact, brain doesn't just enter our food chain but goes directly into the human food supply. Each year, according to the USDA's Food Safety and Inspection Service, which is charged with regulating the meat industry, about a million cow brains are sold for consumption in the United States, and others are exported. Generally these are whole brains taken from cows slaughtered in the kosher manner—that is, their throats are cut while they are still conscious. Most cows in the United States, though, are shot in the head with a stun gun before having their throats cut, a process perhaps more humane but also, at least when a pneumatic stun gun that injects air is used, more likely to contaminate other parts of the carcass with brain. This pneumatic gun can crack the cow's skull, causing the brain to leak out. And the force of the gun is such that it can blow pieces of brain into the bloodstream, where they can be carried to the animal's lungs or liver. Tam Garland has recovered chunks of brain as large as six inches across in the lungs of slaughtered cattle. Canadian researchers have spotted pieces of brain about two and a half inches wide lodged in cow livers.

There is no law against the addition of heart, liver, and other "variety meats" to hot dogs, sausages, and canned or bottled meat products, such as chili and spaghetti sauce (when present, variety meats are noted in the list of ingredients). Nor does any regulation mandate that spinal cords be removed before carcasses are processed, although some plants are said to follow this procedure nonetheless. Unless spinal cords are removed, "mechanically deboned" meats, which are found in products such as hamburger and bologna, can be contaminated with bits of central-nervous-system tissue when the spinal columns are mechanically plucked and squeezed to get off the last bits of flesh.

Will Hueston, a veterinary epidemiologist formerly with the USDA and now an associate dean at the Virginia-Maryland Regional College of Veterinary Medicine, says that the agency has not imposed a ban on spinal column and brain in the rendering process because to do so would be very expensive and basically unenforceable. As one rendering-plant employee told me, "Who would want the job of cutting out all those spinal columns and brains? You couldn't even get occasional workers to do it." But when asked why brain and spinal column are not banned from the human food supply in the United States, Hueston was circumspect, suggesting that I speak with someone at the Food Safety and Inspection Service.

Jacque Knight, a spokeswoman for the FSIS, was vague and seemed annoyed when asked whether brain or spinal cord was getting directly into sausage or other processed meats. "Since the Meat Act of 1906 we have never prohibited brain or spinal cord," she said. "It is part of the animal. However, it is not something people expect to find in meat. Therefore, as of May of last year, we have told our inspectors that if they suspect brain or spinal cord of getting into meat, they should report it." The inspectors' union expressed

concern that it would be difficult for its members, already bogged down in other duties, to take on this additional task. The agency employs 7,535 inspectors in 6,200 meat and poultry slaughtering and processing plants. To date fifty-four reports have been filed and five plants have been found in violation of the rule.

TSE infectious material does not concentrate in muscle tissue, so steaks, chops, and roasts are probably fairly safe to eat. Though contamination of these cuts is possible (through, for example, splattering when the spinal cord is cut during processing), the amount of infectious material on them, if any, is likely to be low. More than one scientist told me that if I was concerned about my family's exposure to TSE agent, I would do well to steer clear of processed and reformed meats such as bologna and head cheese. Not being a head-cheese fan, I have not found it difficult to follow this advice. In addition, I avoid any ground meat that hasn't been ground in the store where I buy it. I get hamburger by asking the butcher in my supermarket to put a chuck roast through the mill. I no longer buy spaghetti sauce with meat (an old favorite), and my eight-year-old daughter has forsaken lunch meats for what she calls "vegetarian burgers," which consist of a slice of American cheese melted over two sandwich pickles on a bun. Though whether it is possible to acquire CJD from American beef is entirely unclear, making these small culinary adjustments seems well worth doing given the gravity of the disease and the government's hesitation to do all it can to avoid it.

A Medical Mystery

THE Rocky Mountain Laboratories is an unassuming NIH outpost hunkered in the shadow of the magnificent snow-crested Bitterroot Mountains. Built on a residential street in Hamilton, Montana, the red-brick structure stands out like a Brooks Brothers suit on Casual Friday. The lab was set up by the state in 1928 to study Rocky Mountain spotted fever, a deadly tick-borne disease that plagued the region. The people of Hamilton were so nervous about ticks going AWOL from the lab that a moat—really, a puddle-deep trench—was dug around its perimeter. Over time the laboratory has branched out to consider a wide range of infectious diseases, and has attracted, among other notables, a world-renowned team of experts on TSE. One of these is Byron Caughey, a strapping, bearded biochemist who looks nothing like the poet whose name he shares.

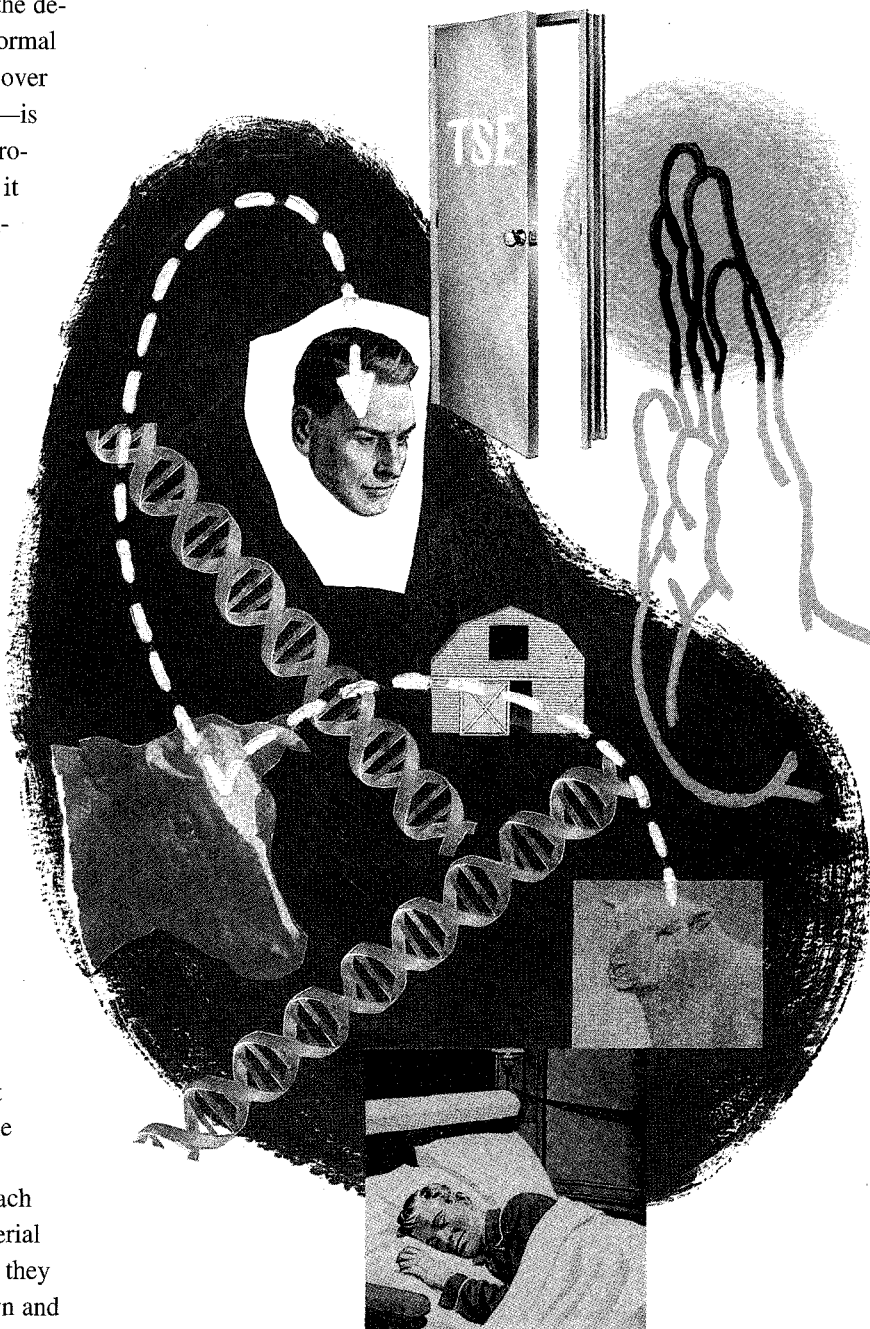
For about the past decade Caughey has studied "prion" proteins, molecules of uncertain function that are found on the surface of nerve cells. The buildup of a distorted form of these proteins—called, simply enough, abnormal prion proteins—is the identifying characteristic of TSE. In a scientific paper published in 1995 Caughey and his co-author, Peter Lansbury, a protein chemist at the Harvard Medical School, likened abnormal prion proteins to ice-nine, the sinister agent that catalyzed

the freezing of all water on earth in Kurt Vonnegut's classic novel *Cat's Cradle*. Like Vonnegut's ice crystals, abnormal prion proteins convert neighboring prion proteins to the abnormal form, contorting protein molecule after protein molecule in a demonic domino effect. The resulting prion-protein buildup kills brain cells and forms the characteristic sponge-like holes, the "spongiform" encephalopathy, of TSE.

Whereas the symptoms of TSE are clear, the debate over what initiates the conversion of normal prion proteins to the virulent form—that is, over what constitutes the infectious agent in TSE—is one of the hottest and most contentious controversies in modern biology. One theory has it that the abnormal prion protein itself is the infectious agent. The British mathematician J. S. Griffith was the first to propose the idea that proteins could be infectious, in a paper published in 1967 in *Nature*. He suggested that proteins might self-replicate much the way crystals do, by building up around a central seed crystal. But crystals do not "grow" in the organic sense of the word. The notion that proteins, the building blocks of life, could replicate without the aid of genetic material, or the nucleic acids that make up that material, was heretical. Even the simplest microbes require nucleic acids to direct their growth. As one scientist puts it, the notion that a protein in and of itself could control life "defies basic Darwinian principles." Coming as it did from a mathematician rather than a life scientist, the crystal theory was regarded largely as a theoretical construct. In any case, Griffith never published on the subject again, and when he died, in 1972, his theory faded. It was assumed by virtually everyone at the time that TSE was caused by a virus.

Viruses are extremely basic creatures, each consisting of a single thread of genetic material enclosed in a protein sheath. Unlike bacteria, they lack the wherewithal to multiply on their own and rely on the largesse of the creatures they infect. Generally it takes a few hours or days for a virus to replicate in large numbers. The host recognizes this viral buildup as an alien onslaught and, unless weakened or old, usually marshals its immune system in order to ward off the attack. Unlike most viruses, the TSE agent does not attack within hours or days but bides its time, hiding out and multiplying in the host for years, even decades, before making its presence known. In the meantime, TSE does not elicit an im-

mune response, and there is very little inflammation—indeed, no outward sign of infection at all until the disease has progressed beyond the body's ability to control it. For this reason some scientists assume that a TSE virus lurks cloaked in the host's own protein, disguised as a natural part of the host until it's ready to pounce.



"Whatever is causing this disease is unique; it falls out of the realm of all other disease agents," says Richard Rubenstein, the head of the molecular and biochemical neurovirology laboratory at the New York State Institute for Basic Research, in Staten Island. "We feel that it is probably a virino—a nucleic acid protected by a host protein that camouflages it so that the immune system doesn't pick it up. There is no

antibody reaction to the agent at all. The body simply does not recognize it as foreign."

Detecting this particular agent is difficult, and so far neither Rubenstein nor any other scientist has been able to find it. Many have given up the hunt, concluding that the virus cannot be found because it does not exist. Among these is Stanley Prusiner, a professor of neurology at the School of Medicine of the University of California at San Francisco. It was Prusiner who, in 1982, coined the term "prion," to describe what he

Protecting the population from the most obvious potential source of disease would be relatively straightforward. And yet regulatory agencies in the United States have not taken up the challenge.

believed was the probable agent of scrapie: not a virus but Griffith's long-abandoned infectious protein. Eventually—most notably in a 1995 paper in *Scientific American*—Prusiner went so far as to assert that prions are the cause of TSE. Prusiner's is a powerful and convincing voice, and the prion theory of TSE transmission has come to dominate the field. Last year Prusiner was awarded the Nobel Prize in medicine for discovering prions.

"Some of us are reluctant to use the term 'prion' for the infectious agent, because it presupposes that the agent is protein only," Caughey told me. "But so far most of the evidence points in that direction." Caughey explained that unlike most viruses, the TSE agent is undeterred by exposure to radiation and resistant (up to a point) to destruction by heat—both indications that it lacks nucleic acid. Peter Lansbury, Caughey's frequent collaborator, says that the agent "has the chemistry of a protein." David Bolton, a scientist at the Institute for Basic Research, who got his start in Prusiner's lab at UCSF, agrees. Bolton says, "Every aspect of this disease is best explained by the protein-only model." But Bruce Chesebro, a virologist, an immunologist, a physician, and Caughey's boss at Rocky Mountain, is not so sure. Considered by many to be the "voice of reason" in what has become a rancorous debate, Chesebro believes that the abnormal prion protein is a result of TSE infection rather than the cause of it.

"Viruses are very small, and sometimes they take decades to find," he explained to me. "We haven't found one yet, but that doesn't mean it's not there." Chesebro also said that TSE agent is not uniquely invincible, as some have implied. "Most of the infectious agent dies under exposure to prolonged high heat and detergents," he said. "You can get rid of ninety-nine-

point-nine percent of it simply by heating the stuff at a high temperature for thirty minutes." To buttress his point that viruses can be very hardy creatures indeed—perhaps as tough as TSE infectious agent—Chesebro reminded me that viruses recently discovered in the geysers of Yellowstone National Park live near or at the boiling point.

Laura Manuelidis, the head of neuropathology at Yale Medical School, is perhaps the harshest critic of the protein-only hypothesis. She contends that the public mistakenly believes that Prusiner (who rarely gives interviews) has proved his case, and that this has made it difficult for scientists with an opposing view to get recognized, or even heard. "The prion has taken on a mythical component—it's become magical," she says. "But to me, TSE shares all the signs of a slow viral disease. In sheep it is found in the classic places viruses go: the spleen, the lymph nodes, the central nervous system. In cows it's in the central nervous system—

where many slow viruses can hide." Despite arguments to the contrary, Manuelidis contends that the prion protein itself does not infect animals, and that the true infectious agent is still unknown. "It would be a shame," she says, "if we followed the wrong trail while an infectious epidemic was incubating."

For now, the infectious agent remains a mystery, and perhaps an academic one. Whether or not abnormal prion proteins are the cause of TSE, they are certainly among its results; and by the time the protein conversion has started, the case is beyond treatment. A more immediate question, then, is how the agent made its way into so many British cows. One theory has it that several cows with spontaneous BSE were rendered, made into feed, and fed to a large number of other cows, who were themselves rendered and served. A few cycles of this could infect a large number of cows. But many experts are dubious of this theory because spontaneous BSE, if indeed it exists, is probably rare, whereas the infection in British cows became widespread. Another possibility is that BSE got its start not in cows but in sheep infected with scrapie—the ovine TSE. What is particularly unnerving about this idea is that scrapie is not at all a rare disease.

Jumping the Species Barrier

ENGLAND has struggled with scrapie since the mid-1700s. In July the British government took the highly dramatic step of requiring all sheep and goats even suspected of being infected with the disease to be slaughtered and their carcasses disposed of by the Ministry of Agriculture, Fisheries and Food.

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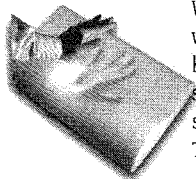
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Scrapie was long thought to be a purely genetic disease, but by the mid-1930s French researchers had shown that it is infectious. The disease got a foothold in the United States in 1947, when an outbreak, traced to an import of purebred Suffolk sheep, was reported in Michigan. In 1952, when scrapie outbreaks were reported in California and Ohio, the

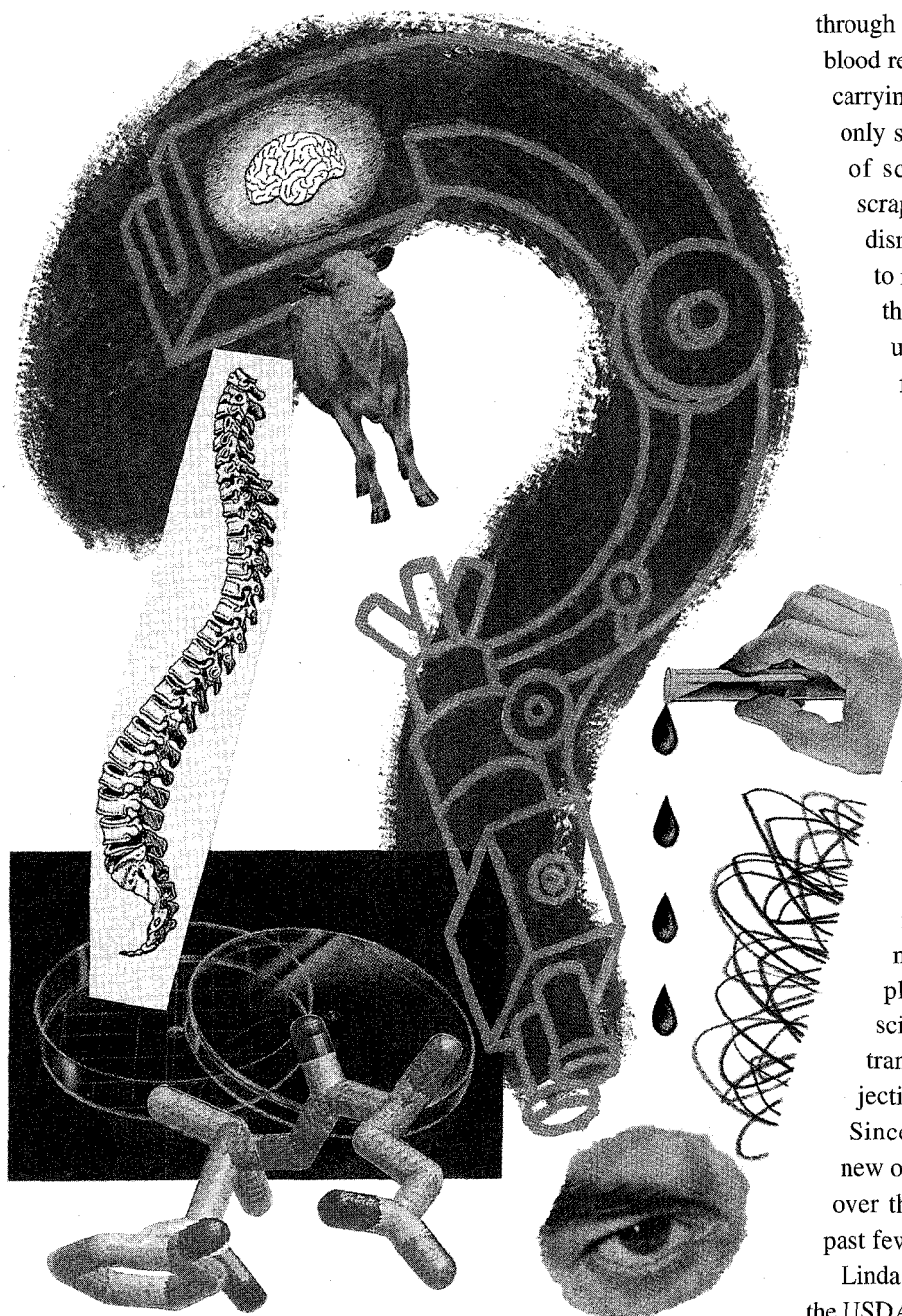
that many thought were too small to be credible. In 1978 the USDA instituted a program of reimbursing farmers two thirds of the appraised value of the sheep sacrificed in their flocks, up to \$300 per animal. But in 1983 it was decided that farmers would be required to kill (and would be reimbursed for) not their entire flocks but only infected sheep and

immediate relatives. At this point reports of scrapie increased. Since scrapie is known to spread through contact, the new rule made little sense—blood relations had a slightly elevated chance of carrying the disease but were certainly not the only sheep at risk. In 1992, for a combination of scientific and budgetary reasons, the scrapie-eradication program was essentially dismantled: farmers were given six months to report sick sheep for reimbursement, and then the coffers were closed. Today a voluntary system is in place, under which farmers can apply to have their sheep certified “scrapie-free.” But as of this writing less than one percent of the country’s flocks have joined the program. “No

one knows the exact incidence of scrapie in the United States,” Richard Race, of the Rocky Mountain Laboratories, says. “Surveillance in some states is so poor, and some vets tell me they don’t do anything about it.”

Known strains of the scrapie agent do not seem to be infectious to human beings: at any given time over the past couple of centuries as many as a third of British sheep have been infected with the disease, but they have not, apparently, conferred it on the people who ate them. However, American scientists have found that they are able to transmit scrapie from sheep to cows by injecting infectious material into their brains. Since scrapie is an old disease and BSE a new one, it seems that if the agent got boosted over the species barrier, it did so only in the past few decades.

Linda Detwiler, the senior staff veterinarian for the USDA, coordinates BSE surveillance and used to coordinate surveillance for scrapie. When we spoke, she reassured me that scrapie is “not rampant” in the United States—that thirty to sixty-five infected flocks a year are reported. But when I asked how many cases might go unreported, she responded, “We really don’t know the amount of scrapie that there is in the United States. This is mostly due to the lack of a validated test—although one is being developed—that can detect scrapie in a live animal not



USDA launched the first of two eradication programs, requiring the slaughter of entire herds infected with even a single case of scrapie. Not surprisingly, sheep farmers were reluctant to report suspected cases, and scrapie, as one scientist puts it, was “driven underground.”

From the mid-1950s through the mid-1970s a scant one to twenty-two flocks a year were reported infected—numbers

yet showing signs of the disease. Some sheep producers are afraid, because the lack of a live-animal test has led to programs that have either destroyed animals without scrapie or have left producers with diseased animals." There is no telling how many herders quietly kill off their scrapie-infected sheep and bury them, burn them, or send them to a willing renderer to be converted into feed for other animals.

William Hadlow, a research veterinarian who devoted his career to the study of scrapie and other TSEs, is a world expert on them. Though he retired more than a decade ago, his house, just one block from the Rocky Mountain Labs, is piled kitchen to living room with texts on animal pathology and neurology. Hadlow explained to me when I visited him that the scrapie infectious agent appears in several strains—as might be expected if the agent is a virus, but not if it's a protein. "People who accept the idea that a protein is responsible for transmission of this disease probably haven't gotten within arm's length of a sheep," he told me, adding that he had worked with Stanley Prusiner and respected him, but that he had difficulty accepting the prion theory. And it is likely, Hadlow said, that each scrapie strain is tailored to the genetic makeup of the sheep it infects.

In 1979 two of Hadlow's colleagues injected the brains of ten cows with a strain of scrapie found in American sheep and goats. Hadlow later examined the brains and wrote up the case with his colleagues. The ensuing paper was rejected by three journals before being published in the *American Journal of Veterinary Research*, in May of 1995. The findings were alarming. Although Hadlow and his colleagues found only scant spongiform changes in the cattle's brains, they did find disease in three of the ten cows. "In all 3 affected cattle," they wrote, "the disease was expressed clinically as increasing difficulty in rising from recumbency, stilted gait of the pelvic limbs, disorientation, and terminal recumbency during a 6-to-10 week course." They concluded, "Pathologists should keep this variability in mind when looking for microscopic evidence of a scrapie-like encephalopathy in cattle." What Hadlow had found was that American cattle infected with American scrapie developed a very different disease from the BSE diagnosed in British cattle.

"My point is that there are a number of sheep-scrapie strains extant in the United States, and that these strains may not cause the same clinical signs in American cows as the British strain of scrapie caused in British cows," Hadlow said. "The changes in the brain we found in Texas were very subtle, and they might easily be overlooked if you're not looking for them."

Indirect evidence of just such an infectious agent in cows in the United States was uncovered by Richard Marsh, who, until he died last year, was a member of the Department of Animal Health and Biomedical Sciences at the University of Wisconsin at Madison. Marsh was an expert on transmissible mink encephalopathy. In 1985 he investigated a mysterious

outbreak of TME on a Wisconsin mink ranch. Marsh was told by the rancher that the minks had been fed fish, cereal, poultry, and large amounts of butchered and ground "downer cattle." Although no one is tracking how many cows "go down" in the United States each year (that is, become too lame or too ill to stand on their feet), a common estimate is 100,000. Downer cows are by law not admitted into the food supply without first being cleared by a veterinarian, but most enter the food chain through the rendering process.

Marsh found that he could pass the mink disease into healthy cows by injecting their brains with TME, and that he could pass the disease back into healthy minks by simply feeding them the brain tissue of infected cows. The permeability of the species barrier that this experiment demonstrated led Marsh to conclude that the United States may well have its own brand of BSE—one that is perhaps being disguised by the much broader problem of downer cows.

Chronic wasting disease, another TSE, was diagnosed more than a decade ago in mule deer and elk in Colorado and Wyoming, and it is said to be spreading. Whether outbreaks of the disease have anything to do with scrapie or cattle feed is uncertain. What is known is that these and other diseased animals can be recycled back into the food chain through the rendering process. If TSE in elk or minks is capable of jumping the species barrier, it is being given every opportunity to do so in the rendering vat. And although the FDA's recent feed ban will limit the amount of rendered beef and lamb that is fed to cattle and sheep, it is almost certainly increasing the amount of rendered beef that is fed to other domestic and farm animals, notably poultry and pigs. The FDA estimates that the cost of the ban to the rendering industry is about \$200 million a year, because lessened demand from the cattle industry is bringing down the price for animal feed made from beef and lamb. But if the FDA is right, this can only make the feed more attractive to farmers of other animals.

Pigs are a particular worry. Although they do not seem to get a TSE spontaneously, a recent study in England showed that one of ten pigs inoculated with BSE came down with an analogous disease. Several consumer groups have voiced concern that TSE in pigs may have appeared in this country. In 1979 the USDA sponsored a study of 106 pigs that showed symptoms of central-nervous-system disease on their arrival at a packing plant in upstate New York. The brains of seventy of the pigs were examined, and one was found to have evidence of the spongiform formations and lesions associated with scrapie and transmissible mink encephalopathy. The study was shelved until 1996, when the USDA, alarmed by the British mad-cow outbreak, sent a single slide of the pig's brain to William Hadlow. Hadlow examined the slide but could find nothing conclusive. "It was a bum slide," he recalled. "There was no evidence to make any diagnosis." Four months later the USDA sent him seven additional slides. Again, the slides were not well prepared, and

Hadlow could draw no solid conclusions. But, Hadlow cautioned in a report to the USDA, "should neurologic disease occur in swine exposed to [TSE], conceivably it could be expressed microscopically, as is scrapie in some sheep and as is the encephalopathy in cattle experimentally infected with scrapie agent from American sheep." In other words, if the disease exists in pigs, it could be in a form researchers don't recognize. Meanwhile, no public agency is screening for TSE in pigs.

Last summer the Yale researcher Laura Manuelidis showed that CJD can evolve into more virulent strains by being passed from human beings to mice, from there to hamsters, and finally to rats. Her paper, published in the July 4, 1997, issue of the journal *Science*, concluded that when the agent changed, it provoked a variant disease, and warned that public-health agencies should be on the watch for diverse signs of brain pathology in human beings—not only those symptoms known to be associated with the new variant of CJD. Manuelidis's concern is that if a new variant of CJD has appeared in the United States, we will be slow to realize it, because we are looking for the variant that appeared in Great Britain.

"Fewer than ten percent of all deaths are investigated with an autopsy, and even a smaller percentage of victims of dementia," Manuelidis said. "Alzheimer's disease was rarely diagnosed prior to 1940, but now we diagnose all sorts of people with the disease. But Alzheimer's is a heterogeneous disease with many different causes. One cause for some people could be an infectious agent. And we really have no idea how much CJD there is. The one-in-a-million figure may be an underestimate."

From the look of it, CJD, too, is a heterogeneous disease. Some victims have plaques in their brains, whereas others don't. Some suffer with evident symptoms of the disease for years before dying, some only for months. What made the new variant of the disease particularly noticeable in Great Britain was that the victims were young, and it has not gone unmentioned that other, older victims may well be overlooked, presumed to be afflicted with another form of dementia.

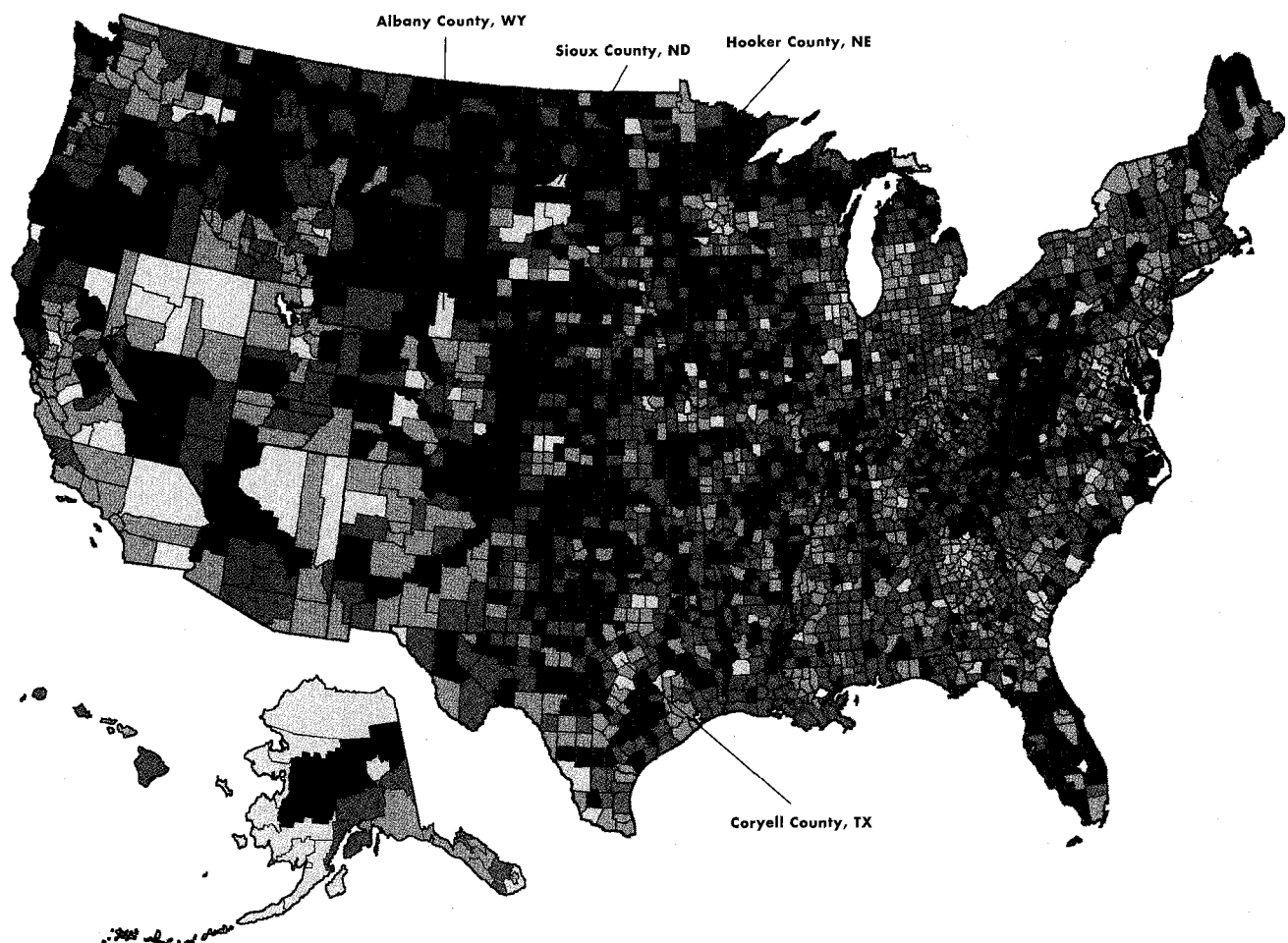
Jeffrey Almond, a British scientist, is a member of the Spongiform Encephalopathy Advisory Committee, a body of scientists and physicians appointed in 1989 to advise the British government on BSE and other TSEs. When we met, at an infectious-disease meeting at the Harvard School of Public Health last year, he looked haunted. He had recently received a heartrending letter from the family of a twenty-one-year-old man who had died of the new variant of CJD. This family, he said, simply pleaded to learn the underlying cause of the young man's death, but others might have reacted differently. He said to me, "If there is an epidemic of this disease—and there might be—and you lost your son or your wife to CJD, you might wish to blame someone, wouldn't you?" He said that he regrets that Britain did not make greater efforts to control its meat industry before the outbreak.

"Every bit of the carcass is used—it's all valuable, isn't it?" he murmured over a lunch of vegetarian lasagna. "They cut off what they can; then they use solvents and sprays to get off the last bits to make into mince and pâté, gravies and sauces. And they put the bones—including the vertebrae—into gelatin. It's a messy business, hard to control. And as recently as 1995 we were, I regret to say, still allowing mechanical recovery of meat off the vertebrae. We finally put a stop to that—but too late." In the United States, of course, this practice is to date unchanged.

Much in the scientific picture of CJD today is hazy. What is clear is that protecting the population from the most obvious potential source of the disease—TSE from animals—would be a relatively straightforward affair. And yet regulatory agencies in the United States have not taken up the challenge. The veterinary epidemiologist Will Hueston, who is the only American member of Britain's Spongiform Encephalopathy Advisory Committee, has witnessed firsthand the terror, chaos, and agony that mad-cow disease brought to Britain. A cautious man, he is concerned lest the public overreact. When I spoke to him not long ago, he argued that the rendering industry performs an invaluable service: to some extent it sanitizes waste products that might otherwise be dumped into landfills or, worse yet, left to fester. But he warned that we can't be certain that any current processing method will sterilize rendered products. In a better world, he said, no diseased animals or central-nervous-system tissue of any kind would go into the food chain. Daniel McChesney, a microbiologist at the Animal Feed Safety Branch of the FDA, told me that such steps would become a priority if an outbreak of BSE were to occur in this country, but for now there is simply no need. "The measures that we're taking are proactive," he said. "Great Britain has the problem; we do not." When I mentioned this to Hueston, he was not impressed. "I, for one, have no interest in eating brain," he said.

Stephen Morse, the director of the Program in Emerging Diseases at the Columbia University School of Public Health, worked with Richard Marsh on his studies of TSE agent in minks. In a letter to the journal *Nature* in March of 1990 he said that he did not believe that what was then generally called scrapie agent would ever find its way through the food chain and into human beings. But he has changed his mind. "Many were wrong about it, including me," he told me recently. "We didn't imagine it could pass from cows into humans. But now we think it can, and it has the potential to be terrifying. Perhaps the best analogy is to the AIDS epidemic. Although it's almost certain that TSE doesn't transmit as readily as HIV, it's similar in a number of other ways. It can remain in the body for long periods without obvious symptoms, and it is fatal. But what I'm thinking about is how we regarded AIDS in the early days, before we really understood it. We underestimated the threat. Perhaps we should avoid making that mistake again." ☸

The Coming of Age



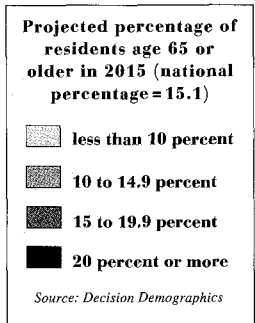
THE map above shows the demographic landscape of the nation's elderly as it is projected to look in 2015, four years after the first Baby Boomers turn sixty-five.

Similarities in the proportions of elderly people in some counties mask differences in the forces that will determine those proportions—chiefly, in-migration of retirees and out-migration of working-age people. Southern Oregon illustrates both trends: coastal Coos, Curry, and Douglas Counties—the “Florida of Oregon”—are expected to continue to attract retirees (mostly Californians), while young job-seekers from the sagebrush country east of the Cascades will keep heading out of state, leaving older folk to “age in place.” In West Virginia, the state that boasts the highest proportion of former residents who return after retirement, relocating Baby Boomers are expected to settle primarily in the rural eastern counties, even as younger West Virginians leave the more-industrial western counties.

A combination of out-migration and aging in place is anticipated for most of the rural Great Plains. In terms of percentage, Nebraska’s sparsely settled Hooker County could well be the oldest in the heartland come 2015: with its hospital

and nursing home set among miles of ranchland, it is projected to have an elderly population exceeding 40 percent.

In the projections for America’s youngest counties the persistence of younger populations often reflects the presence of universities, military bases, prisons, and Native American reservations. For most of the year Wyoming’s Albany County is home to the 11,000 students of the University of Wyoming. Approximately 10,000 inmates currently reside in the six state prisons in Coryell County, Texas, which make up one of the highest concentrations of prisons in any county in the nation. On the Standing Rock Sioux Tribe reservation, headquartered in Sioux County, North Dakota, the proportion of elderly is depressed by the high birth rates and low life expectancy that are common on reservations across the country. —Allan Reeder



Research for this map, produced by Stephen Tordella, of Decision Demographics, was supported by the National Institutes of Health’s National Institute on Aging.



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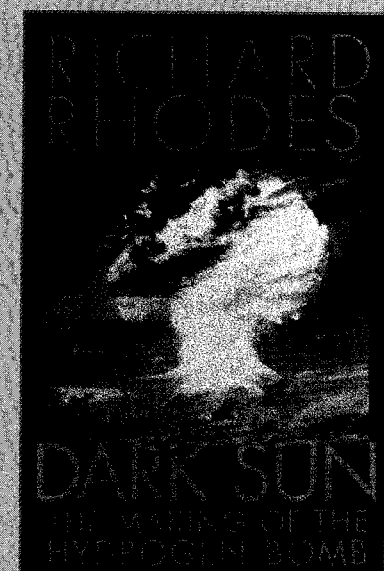
Henry Holt & Co., 1997, hardcover, #0-805-03780-9, 544pp, \$30.00

Dial Books, 1998, paper, #0-805-05841-9, 560pp, \$15.95

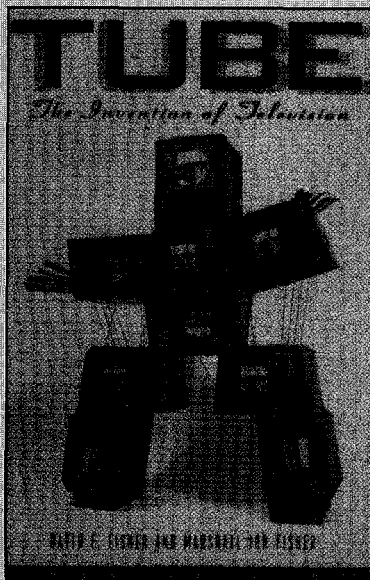
A COMMOTION in the BLOOD



STEPHEN S. HALL



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TUBE

The Invention of Television

David E. Fisher and Marshall Jon Fisher

In the half century since its commercial unveiling, television has become the undisputed master of communications media, revolutionizing the way postwar generations have viewed the world. Yet almost no one in America knows how television was created, who created it, or how it actually works.

THE INVENTION THAT CHANGED THE WORLD

Radar Pioneers and their Revolution

Robert Buderi

The Invention That Changed the World is the great and largely untold story of the colorful band of brilliant scientists who created the microwave radar systems that not only helped win World War II but set off a veritable explosion of scientific achievements and technological advances that have transformed our daily lives.

"The boldness of the title is no exaggeration; indeed it could be lengthened to '*The Invention That Saved and Changed the World.*' Without [radar scientists in World War II], Britain would have gone down. Buderi tells their story with skill, power, and insight – and best of all in language that makes their work understandable to a lay audience. Highly recommended." *Stephen Ambrose, author of D-Day and Undaunted Courage; Meriwether Lewis, Thomas Jefferson, and the Opening of the American West*

"[This] is a technological thriller better than Tom Clancy's best." *Richard Rhodes, author of The Making of the Atomic Bomb and Dark Sun: The Making of the Hydrogen Bomb*

THE HISTORY OF COMMERCIAL AVIATION

TURBULENT SKIES

T. A. HEPPENHEIMER

TURBULENT SKIES

The History of Commercial Aviation

Thomas A. Heppenheimer

Chronicling the meteoric rise of commercial aviation, *Turbulent Skies* is a riveting, multi-faceted tale of daredevils and innovators, of the power and pitfalls of big business, and of the awe-inspiring achievements of modern technology. Charting a course marked by both spectacular successes and dramatic failures, the book follows the intense competition to create bigger, better, faster planes and to revolutionize air travel.

"An important addition to the history of technology as well as business, Heppenheimer is as gifted at explaining the development of the jet engine as he is at tracing the rise and triumph of the aircraft industry over ground transport."

Publisher's Weekly

"Not only is his analysis insightful, but his obvious understanding and clear explanation of the impact made by various technological advances add a dimension to this book that others on the topic do not have."

Booklist

"With the precision of a scientist, a good reporter's marshaling of disparate facts, and the vigor of a natural storyteller, Heppenheimer offers an absorbing narrative."

Richard Snow, Editor, American Heritage

John Wiley & Sons, 1995, hardcover, #0-471-10961-4, 388 pp., \$30.00

John Wiley & Sons, 1998, paper, #0-471-19994-0, \$12.95

The inventors of television were a diverse group of iconoclasts from different corners of the world. *Tube* traces their progress, from the laboratory prototypes that drew public laughter to the vicious courtroom battles for control of what would become an enormous market power.

"Excellent for anyone interested in the history of technology, or concerned with the management of innovation." *New Scientist*

"The Fishers share their gift for anecdote, illuminating the greedy squabbling between RCA and a slew of competitors." *The Boston Globe*

"An insightful look into the whole of television." *Science News*

Counterpoint, 1986, hardcover, #1-887-17817-1, 427 pp., \$30.00

Harcourt Brace & Co., 1997, paper, #0-156-00530-0, \$15.00

Simon & Schuster, 1996, hardcover, #0-684-81021-2, 575 pp., \$30.00
Touchstone Books, 1998, paper, #0-684-03529-0, \$16.00

THE INVENTION THAT CHANGED THE WORLD

HOW A SMALL GROUP OF
RADAR PIONEERS WON THE
SECOND WORLD WAR AND
LAUNCHED A TECHNOLOGICAL
REVOLUTION

ROBERT BUDERI

NAKED TO THE BONE

Medical Imaging in the 20th Century

Bettyann Holtzmann Kevles

X-rays, fluoroscopy, ultrasound, CT, MRI, and PET scans – medical imaging has become a familiar part of modern health care today. In this lively history of medical imaging, the first to cover the full scope of the field from X-rays to MRI-assisted surgery, Bettyann Kevles explores the consequences of these developments for medicine and society. Through lucid prose, vivid anecdotes, and more than seventy striking illustrations, she shows how medical imaging has transformed the practice of medicine. Beyond medicine, they helped undermine Victorian sexual sensibilities, gave courts new forensic tools, provided plots for novels and movies, and offered artists from Picasso to Warhol new ways to depict the human form.

"A real eye-opener of a book! Not merely highly original, *Naked to the Bone* offers wonderful proof that medicine, art, society, and the body all form part of a continuum. Bettyann Holtzmann Kevles combines technical mastery with stylistic flair to make this one of the most exciting books of the year."

-Roy Porter, Professor of the Social History of Medicine, Wellcome Institute for the History of Medicine, London

"This fascinating book will be of interest to patients, health care workers, and anyone else who has ever contemplated images of the inside of the human body."

-Joel D. Rowell, M.D., Ph.D., Department of Internal Medicine and of History, University of Michigan, and author of *Technology in the Hospitals: Transforming Patient Care in the Early Twentieth Century*

Rutgers University Press, 1996, hardcover, #0-013-52358-3, 378 pp, \$32.36
Helix Books/Persans Books, 1996, paper, #0-201-32833-X, 384 pp, \$18.00

NAKED to the BONE

BETTYANN HOLTZMANN KEVLES



BEYOND ENGINEERING

How Society Shapes Technology

Robert Pool

Every now and then a book comes along to reshape completely how people think about a subject. *Beyond Engineering* is such a book. If you look closely at the history of any invention, says its author, you will find that factors unrelated to engineering – historical, political, cultural, organizational, economic, and psychological – all influence the path a technology takes. This is an illuminating account of how technology and the modern world shape each other.

"Like all great storytellers, Pool weaves his entertaining narrative into an exploration of some deeply serious questions. [He] treats the reader to 101 tales about the creation and use of modern technologies [and] illuminates critical questions in a way that should bring insight to non-technical and to many technical readers."

-Professor M. Granger Morgan, Head of the Department of Engineering and Public Policy, Carnegie Mellon University

"For anyone at all interested in understanding the complex and puzzling ways in which major new technologies came to be and ended up as they have, [this book] is not to be missed."

-Robert K. Merton, Professor Emeritus, Columbia University

"The best book available for the general reader engaging our human-built world."

-Thomas P. Hughes, Mellon Professor Emeritus, The University of Pennsylvania, and Distinguished Visiting Professor, Massachusetts Institute of Technology

Oxford University Press, 1997, hardcover, #0-195-10772-1, 358 pp, \$30.00

COMPUTER

A History of the Information Machine

Martin Campbell-Kelly and William Aspray

Earlier histories of the computer depict it as a tool created by and for scientists. This book shows how business and government were the first to explore the unlimited potential of the machine as an information processor. Here is a tale of old-fashioned entrepreneurship in a symbiotic relationship with scientific know-how. It is the story of how the computer has reshaped our society. Filled with lively insights and a strong narrative, here is a book no owner or user of computers can miss.

"A very important book. Essential reading for those who are curious about the 'computer revolution' or have to live with or exploit this technology."

-James W. Cortada, author of *Before the Computer* and *So Consultant, IBM*

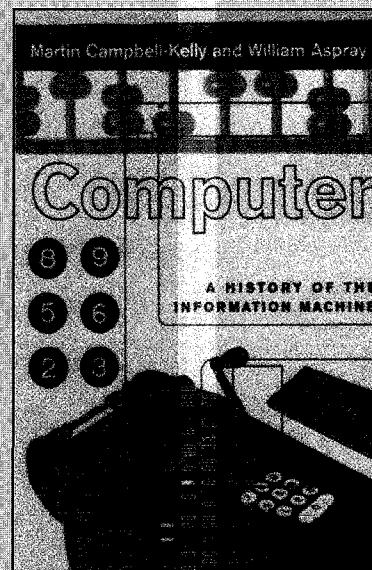
"A remarkable guide to the information age, introducing the main features of today's computers and their uses one by one. By placing the design and use of computers in a historical perspective, the authors have produced a splendid primer for our times."

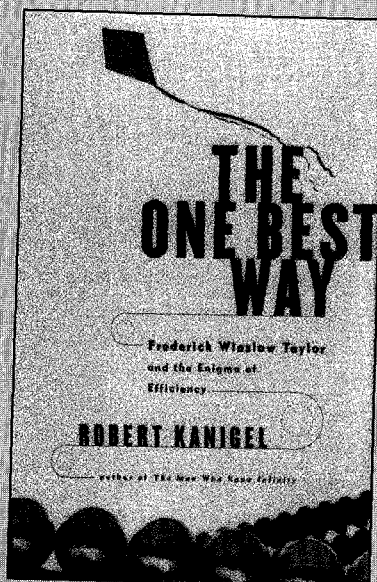
-I. Bernard Cohen, Victor S. Thomas Professor of the History of Science, Emeritus, Harvard University

"Well organized and easy to read, this fascinating account should appeal to anyone interested in the history of computers and the information processing industry. The balanced treatment of events in the United States and Great Britain is particularly noteworthy."

-Emerson Pugh, author of *Building IBM: Shaping an Industry and its Technology*

Basic Books, 1996, hardcover, #0-465-02869-2, 342 pp, \$28.00
Basic Books, 1997, paper, #0-465-02990-6, \$15.00





THE ONE BEST WAY

*Frederick Winslow Taylor
and the Enigma of Efficiency*

Robert Kanigel

Frederick Winslow Taylor, the first efficiency expert and model for all the stopwatch-clicking engineers who stalk the factories and offices of the industrial world, influenced Ford's assembly line and Lenin's Soviet Russia. His ceaseless quest for "the one best way" changed the very texture of twentieth-century life.

Robert Kanigel's epochal biography recounts the life of the man who taught us *not* to stop and smell the roses, and whose compulsions eerily foreshadowed how we live and work today.

"Frederick Taylor's zealous determination to make efficiency the prime temporal value of our century has had untold consequences for civilization. Kanigel's intimate account of Taylor's personal odyssey and mission holds up a revealing mirror to our life and times."

-Jeremy Rifkin, author of *The End of Work* and *Time Wars*

"What is so extraordinary about Robert Kanigel's *The One Best Way* is that it's fair to Frederick Taylor, fair to those he Taylorized in his own lifetime, and fair to the millions (me included), who've chafed against Taylorism for over a century now." Barbara Carson, author of *All the Living Day* and *The Electronic Sweatshop*

"This steam-powered trip through the Iron Age of America, where an idealistic craftsman becomes a huckster for efficiency, is a delightful read. The writing sings with a love for yesterday's technology, teaching lessons yet to be learned by today's software developers."

-Clifford Stoll, author of *The Cuckoo's Egg* and *Silicon Snake Oil*

Viking Press, 1997, hardcover, #0-670-86402-1, 675pp, \$34.95

CRYSTAL FIRE

The Birth of the Information Age

Michael Riordan and Lillian Hoddeson

On December 16, 1947, John Bardeen and Walter Brattain, physicists at Bell Laboratories, jabbed two electrodes into a sliver of germanium half an inch long. The electrical power coming out of that piece of germanium was 100 times stronger than what went in. In that moment the transistor was invented and the information age began.

Crystal Fire is a tale of human factors in technology — the pride and jealousies coupled with scientific and economic aspiration that led to the creation of modern microelectronics and ignited the greatest technological explosion in history.

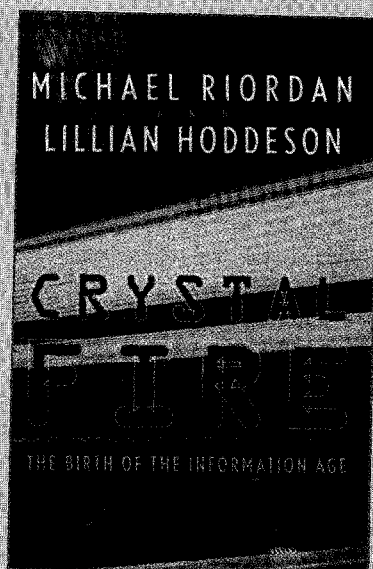
"A swiftly moving narrative account of the remarkable people who invented the transistor — and thereby created today's Information Age."

-Charles C. Mann, co-author of *@Large: The Strange Tale of the Internet's Greatest Invasion*

"Clear, readable, interesting, deeply knowledgeable — an important subject and a damn fine book." -Horace Freeland Judson, director, Center for History of Recent Science, George Washington University

"Tracing the elusive trail of scientific and engineering genius through a corporate maze of collective research and development, *Crystal Fire* provides a probing analysis and sparkling insights into our remarkable era of technological achievement." -Thomas P. Hughes, Mellon Professor Emeritus, The University of Pennsylvania and Distinguished Visiting Professor, Massachusetts Institute of Technology

W.W. Norton & Co., 1997, hardcover, #0-393-04124-7, 352 pp, \$27.50



"Invaluable for students of the history of science and technology as well as for students preparing for careers in engineering or applied science."

Albert Bowker, Chancellor Emeritus, University of California, Berkeley, and City University of New York

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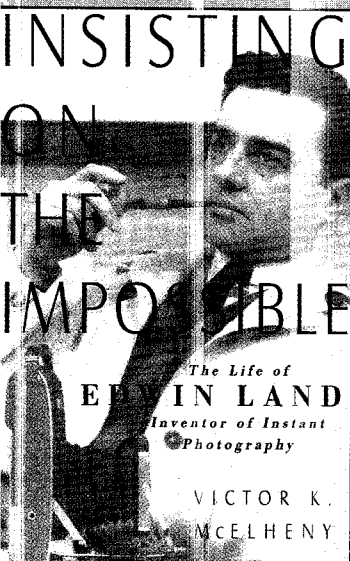
-Daniel Kevles, Koepfli Professor of the Humanities
California Institute of Technology



The Sloan Technology Series seeks to present to the general reader the story of the development of critical twentieth-century technologies. Technology — the application of science, engineering, and industrial organization — has led, in developed nations, to a standard of living inconceivable a hundred years ago. The process, however, is not free of stress; by its very nature, technology brings change in society and undermines convention. It affects virtually every aspect of human endeavor. The effects are not one-way; just as technology changes society, so too do societal structures and attitudes affect technology. But perhaps because technology is so rapidly and completely assimilated, the profound interplay of technology and society has not been sufficiently recognized. As the century draws to an end, it is hoped that the Series will disclose patterns of a past that might provide perspective on the present and inform the future.



Founded In 1934,
the Alfred P. Sloan Foundation
is a philanthropic nonprofit institution
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INSISTING ON THE IMPOSSIBLE

The Life of Edwin Land

Victor K. McElheny

Insisting on the Impossible reveals the startling scope of Land's scientific and entrepreneurial genius. Second only to Edison in the number of patents he received (535), he built a tiny basement enterprise into a gigantic "invention factory," turning out not only polarizers and the first instant cameras, but also high-speed and X-ray film, identification systems, 3-D and instant movies, and military devices for night vision and aerial reconnaissance.

Land's relentless curiosity, magical public presence and willful optimism should appeal to anyone interested in business, science, photography, educational reform, or government.

"The founder of Polaroid lived one of the great creative and entrepreneurial success stories of our age. This masterful biography tells that story in enthralling detail. I found myself completely caught up." - Richard Rhodes, author of *The Making of the Atomic Bomb*, *The Making of the Hydrogen Bomb* and *Deadly Feasts*

"The man is a national treasure." - Steven Jobs, Apple Computer, Inc.

"A heroic job, developing a credible account of the genius who invented instant photography." - Justin Kaplan, author of *Mr. Clemens and Mark Twain*

Perscus Books, 1998, hardcover, #0-7382-0009-3, 560 pp. \$30

"This Series makes an important contribution to the understanding of the history and current status of technology in the world. It offers valuable insights to business, government and academia. Through these books, the Sloan Foundation continues to play its distinctive role in enhancing public appreciation of technology."

-William Spencer, Chairman of the Board,
SEMATECH

SHE

Portrait of the Essay as a Warm Body

by

CYNTHIA OZICK

*The essay does
not allow us to forget
our usual sensations and
opinions. It does
something even more
potent: it makes
us deny them*

AN essay is a thing of the imagination. If there is information in an essay, it is by-the-by, and if there is an opinion, one need not trust it for the long run. A genuine essay rarely has an educational, polemical, or sociopolitical use; it is the movement of a free mind at play. Though it is written in prose, it is closer in kind to poetry than to any other form. Like a poem, a genuine essay is made of language and character and mood and temperament and pluck and chance.

I speak of a "genuine" essay because fakes abound. Here the old-fashioned term *poetaster* may apply, if only obliquely. As the poetaster is to the poet—a lesser aspirant—so the average article is to the essay: a look-alike knockoff guaranteed not to wear well. An article is often gossip. An essay is reflection

and insight. An article often has the temporary advantage of social heat—what's hot out there right now. An essay's heat is interior. An article can be timely, topical, engaged in the issues and personalities of the moment; it is likely to be stale within the month. In five years it may have acquired the quaint aura of a rotary phone. An article is usually Siamese-twinning to its date of birth. An essay defies its date of birth—and ours, too. (A necessary caveat: some genuine essays are popularly called "articles"—but this is no more than an idle, though persistent, habit of speech. What's in a name? The ephemeral is the ephemeral. The enduring is the enduring.)

A small historical experiment. Who are the classic essayists who come at once to mind? Montaigne, obviously. Among the nineteenth-century English masters, the long row of Hazlitt, Lamb, De Quincey, Stevenson, Carlyle, Ruskin, Newman, Martineau, Arnold. Of the Americans, Emerson. Nowadays, admittedly, these are read only by specialists and literature majors, and by the latter only under compulsion. However accurate this observation, it is irrelevant to the experiment, which has to do with beginnings and their disclosures. Here, then, are some introductory passages:

One of the pleasantest things in the world is going a journey; but I like to go by myself. I can enjoy society in a room; but out of doors, nature is company enough for me. I am then never less alone than when alone.

—William Hazlitt, "On Going a Journey"

To go into solitude, a man needs to retire as much from his chamber as from society. I am not solitary whilst I read and write, though nobody is with me. But if a man would be alone, let him look at the stars.

—Ralph Waldo Emerson, "Nature"

... I have often been asked, how I first came to be a regular opium-eater; and have suffered, very unjustly, in the opinion of my acquaintance, from being reputed to have brought upon myself all the sufferings which I shall have to record, by a long course of indulgence in this practice purely for the sake of creating an artificial state of pleasurable excitement. This, however, is a misrepresentation of my case.

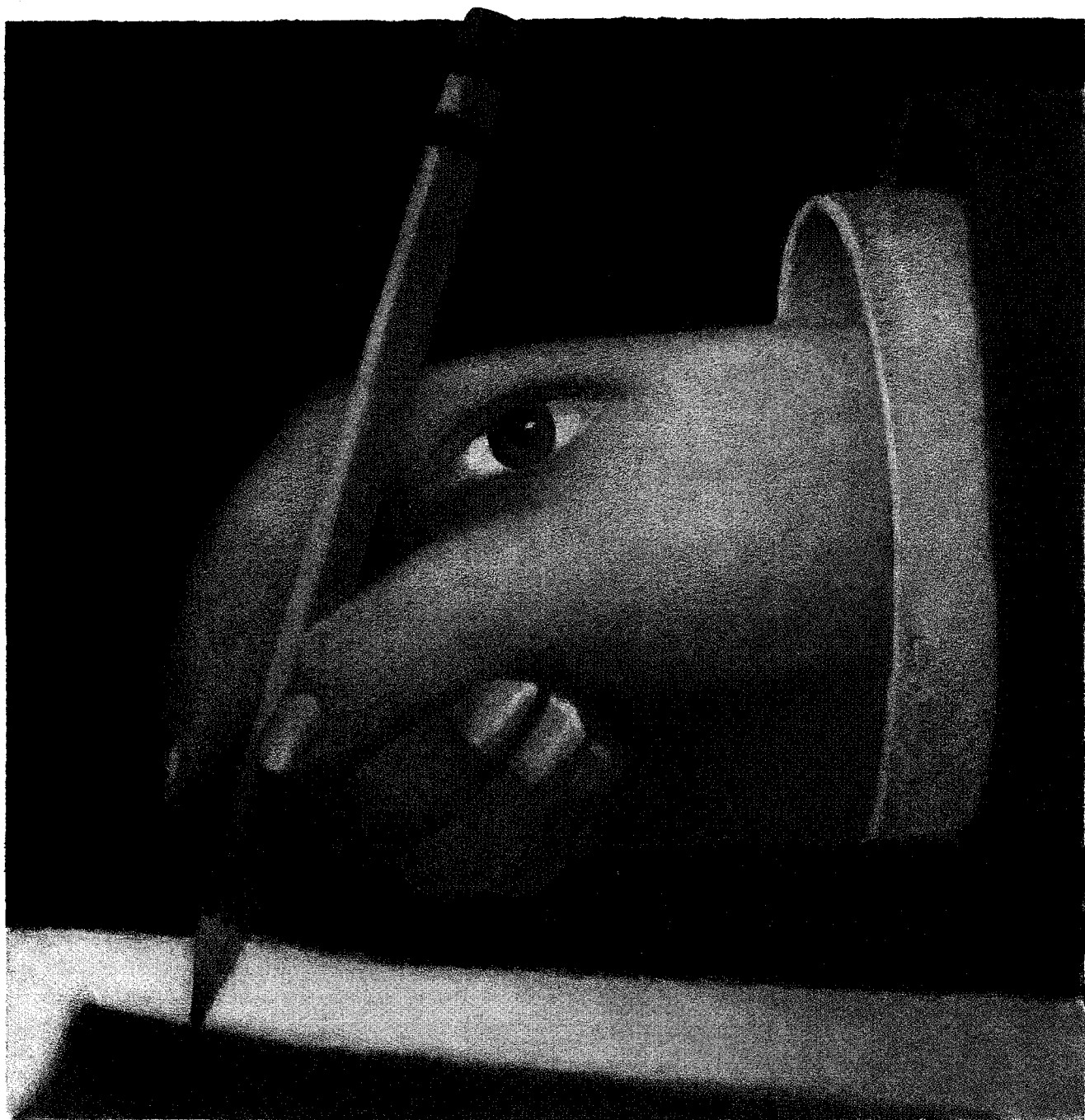
—Thomas De Quincey, "Confessions of an English Opium-Eater"

The human species, according to the best theory I can form of it, is composed of two distinct races, *the men who borrow, and the men who lend*.

—Charles Lamb, "The Two Races of Men"

I saw two hareems in the East; and it would be wrong to pass them over in an account of my travels; though the subject is as little agreeable as any I can have to treat. I cannot now think of the two mornings thus employed without a heaviness of heart greater than I have ever brought away from Deaf and Dumb Schools, Lunatic Asylums, or even Prisons.

—Harriet Martineau, "The Harem"



The future of poetry is immense, because in poetry, where it is worthy of its high destinies, our race, as time goes on, will find an ever surer and surer stay. There is not a creed which is not shaken, not an accredited dogma which is not shown to be questionable, not a received tradition which does not threaten to dissolve. . . . But for poetry the idea is everything; the rest is a world of illusion, of divine illusion.

—Matthew Arnold, “The Study of Poetry”

The changes wrought by death are in themselves so sharp and final, and so terrible and melancholy in their consequences, that the thing stands alone in man’s experience, and has no parallel upon earth. It outdoes all other accidents because it is the last of them. Sometimes it leaps suddenly upon its victims, like a Thug; sometimes it lays a

regular siege and creeps upon their citadel during a score of years. And when the business is done, there is sore havoc made in other people’s lives, and a pin knocked out by which many subsidiary friendships hung together.

—Robert Louis Stevenson, “*Aes Triplex*”

It is recorded of some people, as of Alexander the Great, that their sweat, in consequence of some rare and extraordinary constitution, emitted a sweet odour, the cause of which Plutarch and others investigated. But the nature of most bodies is the opposite, and at their best they are free from smell. Even the purest breath has nothing more excellent than to be without offensive odour, like that of very healthy children.

—Michel de Montaigne, “Of Smells”

What might such a little anthology of beginnings reveal? First, that language differs from one era to the next: archaism intrudes, if only in punctuation and cadence. Second, that splendid minds may contradict each other (outdoors, Hazlitt never feels alone; Emerson urges others to go outdoors in order to feel alone). Third, that the theme of an essay can be anything under the sun, however trivial (the smell of sweat) or crushing (the thought that we must die). Fourth, that the essay is a consistently recognizable and venerable—or call it ancient—form. In English, Addison and Steele in the eighteenth century, Bacon and Browne in the seventeenth, Lyly in the sixteenth, Bede in the eighth. And what of the biblical Koheleth (Ecclesiastes), who may be the oldest essayist reflecting on one of the oldest subjects—world-weariness?

SO the essay is ancient and various; but this is a commonplace. Something else, more striking yet, catches our attention—the essay’s power. By “power” I mean precisely the capacity to do what force always does: coerce assent. Never mind that the shape and inclination of any essay is against coercion or suasion, or that the essay neither proposes nor purposes to get us to think like its author—at least not overtly. If an essay has a “motive,” it is linked more to happenstance and opportunity than to the driven will. A genuine essay is not a doctrinaire tract or a propaganda effort or a broadside. Thomas Paine’s “Common Sense” and Emile Zola’s “*J’Accuse. . . !*” are heroic landmark writings; but to call them essays, though they may resemble the form, is to misunderstand. The essay is not meant for the barricades; it is a stroll through someone’s mazy mind. This is not to say that no essayist has ever been intent on making a moral argument, however obliquely—George Orwell is a case in point. At the end of the day the essay turns out to be a force for agreement. It co-opts agreement; it courts agreement; it seduces agreement. For the brief hour we give to it, we are sure to fall into surrender and conviction. And this will occur even if we are intrinsically roused to resistance.

To illustrate: I may not be persuaded by Emersonianism as an ideology, but Emerson—his voice, his language, his music—persuades me. When we look for words of praise, not for nothing do we speak of “commanding” or “compelling” prose. If I am a skeptical rationalist or an advanced biochemist, I may regard (or discard) the idea of the soul as no better than a puff of warm vapor. But here is Emerson on the soul: “When it breathes through [man’s] intellect, it is genius; when it breathes through his will, it is virtue; when it flows through his affection, it is love.” And then—well, I am in thrall; I am possessed; I believe.

The novel has its own claims on surrender. It suspends our participation in the society we ordinarily live in, so that for the time we are reading, we forget it utterly. But the essay does not allow us to forget our usual sensations and opinions. It does something even more potent: it makes us deny them. The au-

thority of a masterly essayist—the authority of sublime language and intimate observation—is absolute. When I am with Hazlitt, I know no greater companion than nature. When I am with Emerson, I know no greater solitude than nature.

And what is oddest about the essay’s power to lure us into its lair is how it goes about this work. We feel it when a political journalist comes after us with a point of view—we feel it the way the cat is wary of the dog. A polemic is a herald, complete with feathered hat and trumpet. A tract can be a trap. Certain magazine articles have the scent of so much per word. What is indisputable is that all of these are more or less in the position of a lepidopterist with his net: they mean to catch and skewer. They are focused on prey—us. The genuine essay, in contrast, never thinks of us; the genuine essay may be the most self-centered (the politer word would be subjective) arena for human thought ever devised.

Or else, though still not having us in mind (unless as an embodiment of common folly), it is not self-centered at all. When I was a child, I discovered in the public library a book that enchanted me then, and the idea of which has enchanted me for life. I have no recollection of either the title or the writer—and anyhow, very young readers rarely take note of authors; stories are simply and magically *there*. The characters include, as I remember them, three or four children and a delightful relation who is a storyteller, and the scheme is this: each child calls out a story element, most often an object, and the storyteller gathers up whatever is supplied (blue boots, a river, a fairy, a pencil box) and makes out of these random, unlikely, and disparate offerings a tale both logical and surprising. An essay, it seems to me, may be similarly constructed—if so deliberate a term applies. The essayist, let us say, unexpectedly stumbles over a pair of old blue boots in a corner of the garage, and this reminds her of when she last wore them—twenty years ago, on a trip to Paris, where on the bank of the Seine she stopped to watch an old fellow sketching, with a box of colored pencils at his side. The pencil wiggling over his sheet is a grayish pink, which reflects the threads of sunset pulling westward in the sky, like the reins of a fairy cart . . . and so on. The mind meanders, slipping from one impression to another, from reality to memory to dreamscape and back again.

In the same way Montaigne, when contemplating the unpleasantness of sweat, ends with the pure breath of children. Stevenson, starting out with mortality, speaks first of ambush, then of war, and finally of a displaced pin. No one is freer than the essayist—free to leap out in any direction, to hop from thought to thought, to begin with the finish and finish with the middle, or to eschew beginning and end and keep only a middle. The marvel is that out of this apparent causelessness, out of this scattering of idiosyncratic seeing and telling, a coherent world is made. It is coherent because, after all, an essayist must be an artist, and every artist, whatever the means, arrives at a sound and singular imaginative frame—call it, on a minor scale, a cosmogony.

The Atlantic Monthly

invites submissions of poetry, fiction, and personal or journalistic essays for its 1998 Student Writers' Competition. Entrants must be full-time undergraduate or graduate students currently enrolled in an accredited, degree-granting U.S. institution.

writing contest

Submissions should be original, unpublished work (they may have appeared in student periodicals) demonstrating superior quality of expression and craftsmanship.

Categories Poetry, fiction, and personal or journalistic essays. **Prizes** 1st \$1,000, 2nd \$500, 3rd \$250, and one-year subscriptions to *The Atlantic Monthly* for ten runners-up in each category.

Manuscripts should be typewritten (one side only, please), double-spaced, and accompanied by a cover sheet with the following information: title, category, word count, and author's name, address, phone number, E-mail address (if available), and academic institution. Of this information only the title should appear on the manuscript itself.

Submissions should not exceed three poems or 7,500 words of prose. No entrant may send more than one submission per category. Please provide a stamped, self-addressed postcard for acknowledgment of receipt. We cannot provide information on the status of any particular manuscript until winners are announced, in the May, 1999, issue. Winners will receive notification in early spring.

Submissions should be postmarked by December 1, 1998, and sent to: Student Writers' Competition, The Atlantic Monthly, 77 N. Washington St., Boston, MA 02114

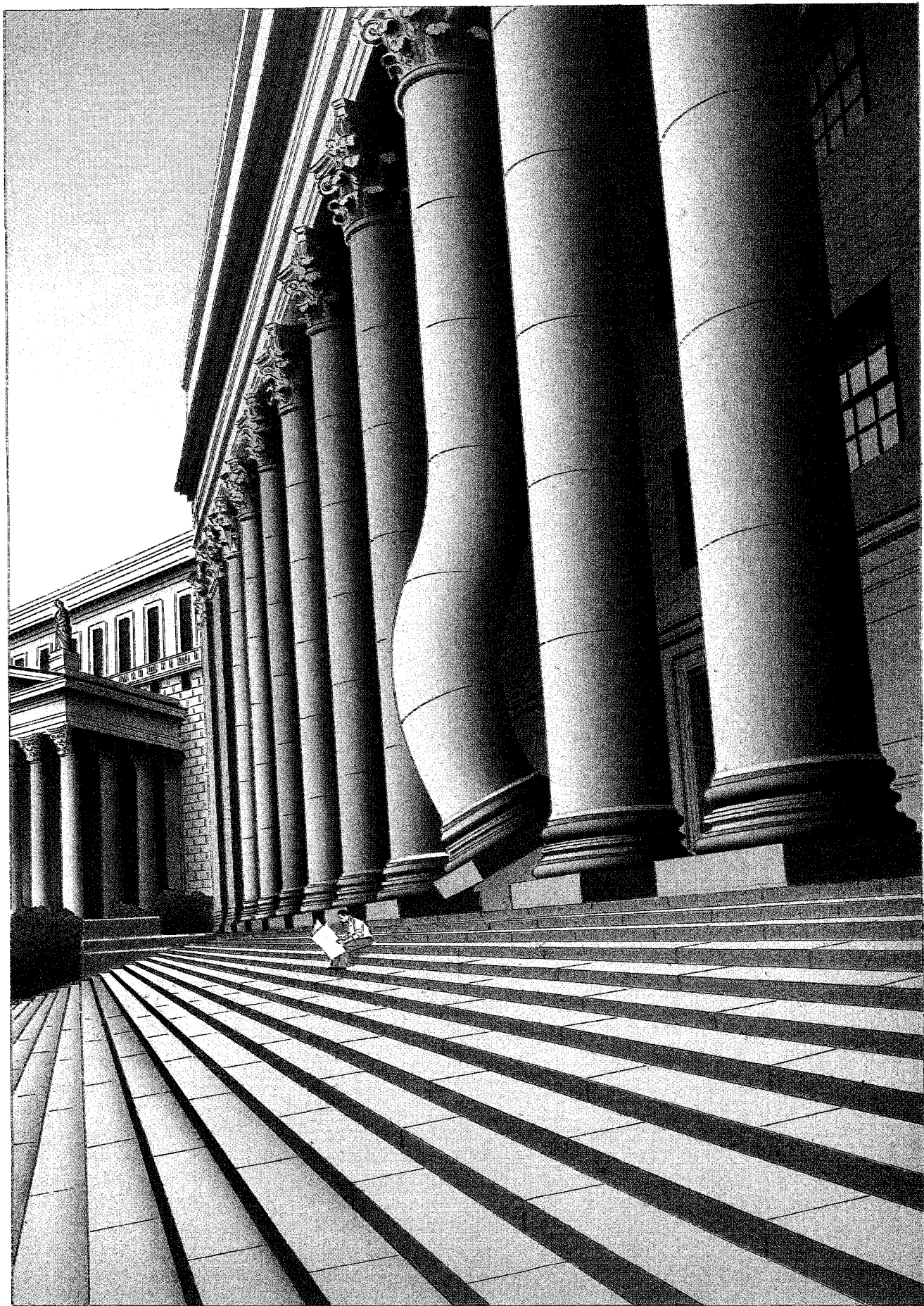
INTO this frame, this work of art, we tumble like tar babies, and are held fast. What holds us there? The authority of a voice, yes; the pleasure—sometimes the anxiety—of a new idea, an untried angle, a snatch of reminiscence, bliss displayed or shock conveyed. An essay can be the product of intellect or memory, lightheartedness or gloom, well-being or disgruntlement. But always we sense a certain quietude, on occasion a kind of detachment. Rage and revenge, I think, belong to fiction. The essay is cooler than that. Because it so often engages in acts of memory, and despite its gladder or more antic incarnations, the essay is by and large a serene or melancholic form. It mimics that low electric hum, which sometimes rises to resemble actual speech, that all human beings carry inside their heads—a vibration, garrulous if somewhat indistinct, that never leaves us while we are awake. It is the hum of perpetual noticing: the configuration of someone's eyelid or tooth, the veins on a hand, a wisp of string caught on a twig; some words your fourth-grade teacher said, so long ago, about the rain; the look of an awning, a sidewalk, a bit of cheese left on a plate. All day long this inescapable hum drums on, recalling one thing and another, and pointing out this and this and this. Legend has it that Titus, Emperor of Rome, went mad because of the buzzing of a gnat that made her home in his ear; and presumably the gnat, flying out into the great world and then returning to her nest, whispered what she had seen and felt and learned there. But an essayist is more resourceful than an Emperor, and can be relieved of this interior noise, if only for the time required to record its murmurings. To seize the hum and set it down for others to hear is the essayist's genius.

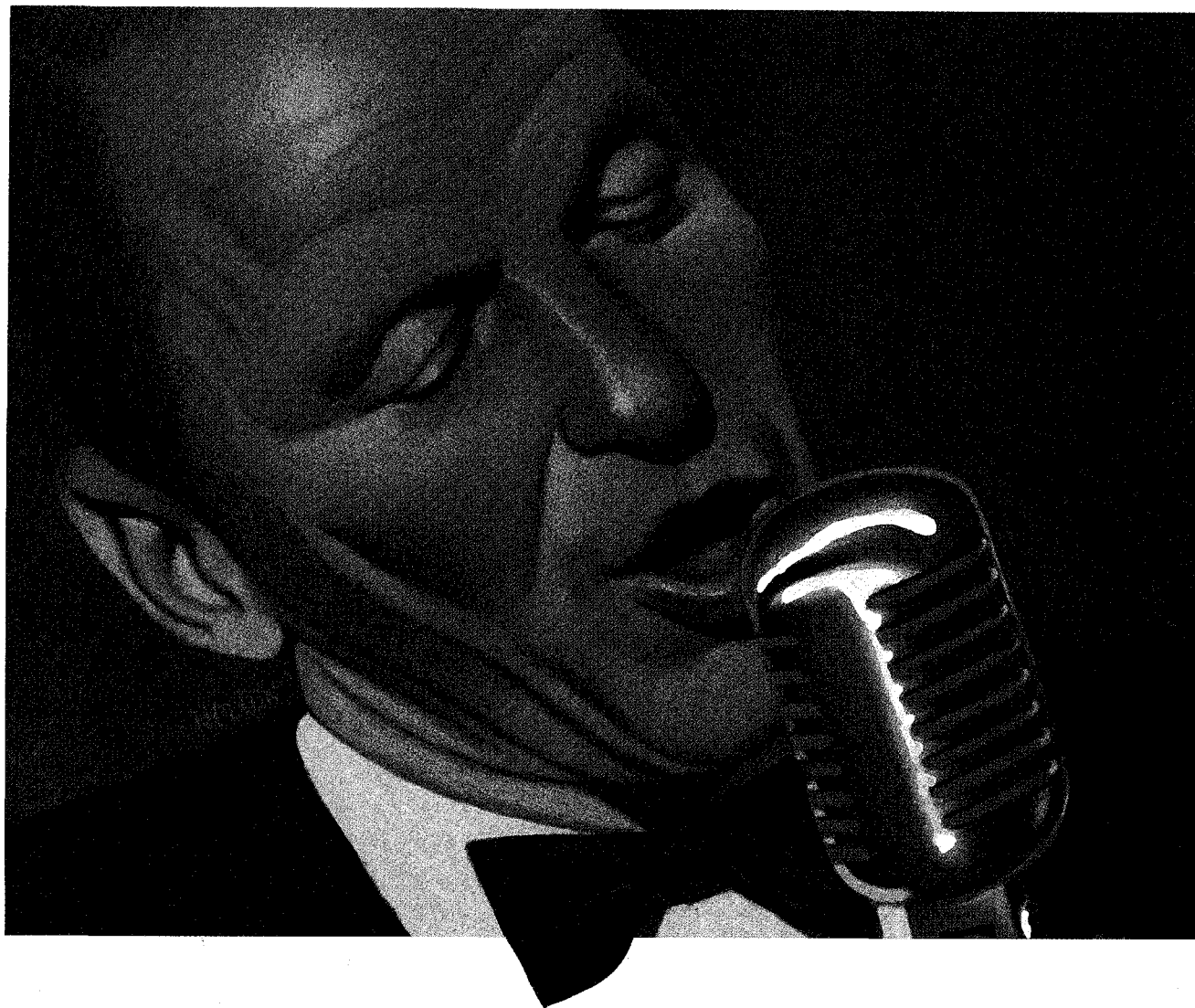
It is a genius bound to leisure, and even to luxury, if luxury is measured in hours. The essay's limits can be found in its own reflective nature. Poems have been wrested from the inferno of catastrophe or war, and battlefield letters, too; these are the spontaneous bursts and burnings that danger excites. But the meditative temperateness of an essay requires a desk and a chair, a musing and a mooning, a connection to a civilized surround; even when the subject itself is a wilderness of lions and tigers, mulling is the way of it. An essay is a fireside thing, not a conflagration or a safari.

This may be why, when we ask who the essayists are, we discover that though novelists may now and then write essays, true essayists rarely write novels. Essayists are a species of metaphysician: they are inquisitive, and analytic, about the least grain of being. Novelists go about the strenuous business of marrying and burying their people, or else they send them to sea, or to Africa, or at the least out of town. Essayists in their stillness ponder love and death. It is probably an illusion that men are essayists more often than women, especial-

ly since women's essays have in the past frequently assumed the form of unpublished correspondence. (Here I should, I suppose, add a note about maleness and femaleness as a literary issue—what is popularly termed “gender,” as if men and women were French or German tables and sofas. I *should* add such a note—it is the fashion, or, rather, the current expectation or obligation—but nothing useful can be said about any of it.) Essays are written by men. Essays are written by women. That is the long and the short of it. John Updike, in a genially confident discourse on maleness (“The Disposable Rocket”), takes the view—though he admits to admixture—that the “male sense of space must differ from that of the female, who has such interesting, active, and significant inner space. The space that interests men is outer.” Except, let it be observed, when men write essays, since it is only inner space—interesting, active, significant—that can conceive and nourish the contemplative essay. The “ideal female body,” Updike adds, “curves around centers of repose,” and no phrase could better describe the shape of the ideal essay—yet women are no fitter as essayists than men. In promoting the felt salience of sex, Updike nevertheless drives home an essayist's point. Essays, unlike novels, emerge from the sensations of the self. Fiction creeps into foreign bodies: the novelist can inhabit not only a sex not his own but also beetles and noses and hunger artists and nomads and beasts. The essay is, as we say, personal.

And here is an irony. Though I have been intent on distinguishing the marrow of the essay from the marrow of fiction, I confess that I have been trying all along, in a subliminal way, to speak of the essay as if it—or she—were a character in a novel or a play: moody, fickle, given to changing her clothes, or the subject, on a whim; sometimes obstinate, with a mind of her own, or hazy and light; never predictable. I mean for her to be dressed—and addressed—as we would Becky Sharp, or Ophelia, or Elizabeth Bennet, or Mrs. Ramsay, or Mrs. Wilcox, or even Hester Prynne. Put it that it is pointless to say (as I have done repeatedly, disliking it every time) “the essay,” or “an essay.” The essay—an essay—is not an abstraction; she may have recognizable contours, but she is highly colored and individuated; she is not a type. She is too fluid, too elusive, to be a category. She may be bold, she may be diffident, she may rely on beauty or cleverness, on eros or exotica. Whatever her story, she is the protagonist, the secret self's personification. When we knock on her door, she opens to us; she is a presence in the doorway; she leads us from room to room. Then why should we not call her “she”? She may be privately indifferent to us, but she is anything but unwelcoming. Above all, she is not a hidden principle or a thesis or a construct: she is *there*, a living voice. She takes us in. ☞





Swing and Sensibility

*Whatever Frank Sinatra sang,
he swung, and his musicianship will endure
longer than the swagger that today's
singers so admire*

WHEN anyone asks did I see Sinatra, I answer yes; I saw him in Philadelphia in November of 1991, on his "Diamond Jubilee" tour. Really, though, all I saw from my seat in the press box was a tuxedoed snowcap who looked a little bit like Casey Stengel and occasionally sounded

by Francis Davis

like him too. I wound up watching Sinatra on a color monitor suspended from a scoreboard, feeling no closer to him than if I were at home, watching him on video. What I most noticed was his hands—translucent, veined, and, to judge from his weak grip on the microphone, arthritic.

Almost forty years before, on his first collaboration with the arranger Nelson Riddle, in 1953, when Sinatra sang of having the world on a string, he might as well have had it dangling. He spent the next fifteen or so years taking songs off the market. Who wanted to hear anyone else do "Angel Eyes" or "I've Got You Under My Skin"? His interpretations were immediately accepted as definitive. During these years, with assistance from Riddle, Gordon Jenkins, and Billy May, among other arrangers, Sinatra originated what is generally called the concept album, though in his case I prefer to think of it as the LP of sensibility. Many performers, including Sinatra, had released collections of songs that were related in some way as far back as the 1940s, before the long-playing album was even invented. Sinatra's innovation, on a series of albums initiated by *Songs for Young Lovers*, in 1953, was to make a

concept out of mood. Unlike Ella Fitzgerald (whose albums for Verve in the late 1950s combined with Sinatra's for Capitol to define an adult market for pop standards at a time when teenagers were beginning to dominate the singles charts), Sinatra never recorded composer songbooks. He didn't share billing. The unifying theme of his classic albums was either that he was feeling dreamy and sad (as on *In the Wee Small Hours* and *Only the Lonely*) or that he was feeling too marvelous for words (as on *Come Dance With Me* and *Songs for Swingin' Lovers*). Eventually he himself became the concept; by 1964, when he recorded *Frank Sinatra Sings Days of Wine and Roses, Moon River, and Other Academy Award Winners*, the selling point wasn't that all the songs were Oscar winners but that Sinatra had deigned to sing them.

Despite quick fame as the best of the "boy" singers of the early 1940s, and also as the cutest in the eyes of that era's hysterical teenage girls, Sinatra didn't hit his stride as a singer or an actor until the early 1950s, when he was pushing forty and starting to lose his hair. Part of the Sinatra legend is that he was destined for oblivion until he switched labels, from Columbia to Capitol, in 1953. Sinatra wasn't really washed up; he was just no longer a craze. His recording of "Mam'selle," a keepsake from the movie *The Razor's Edge* that reached the top of *Billboard*'s chart in 1947, would be his last No. 1 single until "Learnin' the Blues," in 1955. But he put a whopping forty-three songs on the Top 40 between "Mam'selle" and the expiration of his Columbia contract, including nine in the Top 10. These were mostly covers of other singers' hits, including Nat King Cole's "Nature Boy" and the Weavers' "Goodnight, Irene," or novelty tunes, such as "One Finger Melody" and "Don't Cry, Joe (Let Her Go, Let Her Go, Let Her Go)," for which Sinatra didn't bother to conceal his contempt. But also among his chart entries in these years were "Almost Like Being in Love," "What'll I Do?," "But Beautiful," "I've Got a Crush on You," and the haunted "I'm a Fool to Want You"—which, legend has it, Sinatra, still licking his wounds after being dumped by Ava Gardner, completed in one take before fleeing into the night. Sinatra's dip in popularity, his romantic misadventures, his quick temper, and the rumors that be-

gan to surface about his mob connections—all the things that supposedly put his career in jeopardy—ultimately worked to his advantage. They shifted his appeal from women to men, giving him credibility as the guy on the next barstool, a singing Bogart, the recipient of an honorary degree from the School of Hard Knocks. At least two generations of American men came to love him not just for his singing but for his having met middle age head on, with a combination of style and swagger they hoped might also do the trick for them. He was them with talent and the privilege it can buy.

F. Scott Fitzgerald to the contrary, American life is swimming with second acts, the longest of them interminable. Artists who die young, in full possession of their gifts, are remembered mostly for dying. Performers who survive to old age—as Sinatra somehow did despite those Camels and sips of Jack Daniel's that were never just bits of stage business—suffer a perhaps greater indignity: they become living reminders of their audience's mortality.

SINATRA was on stage about ninety minutes that night in Philadelphia—a good night's work for anyone. But he spent much of that time resting on a stool while being serenaded with a medley of his greatest hits by the unctuous Steve Lawrence and Eydie Gorme. The most alarming sign of his diminished capacity was the TelePrompTer Sinatra apparently needed to recall lyrics he'd been singing from the heart for decades.

Am I making too much of Sinatra's electronic crib sheet? A friend who saw him on the same tour points out that photographs of Sinatra in the recording studio in the 1950s and 1960s show him looking at scores, even though he was unable to read music. I doubt that this proves that Sinatra never bothered to memorize lyrics. I see it as evidence of his intuitive musicianship, his way of keeping an eye open for dynamic markings and the vertical movement of notes. Regardless of his arranger or conductor, or who was listed as the producer, Sinatra was the arbiter of how the final take should sound. James Van Heusen and Sammy Cahn's "Only the Lonely" is familiar as the title track of a 1958 album that Sinatra often named as one of his favorites. On the three-disc *Frank Sina-*



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tra / *The Capitol Years* this art song disguised as a ballad—which Sinatra seems never to have performed in concert, probably because of the difficulty that certain of its intervals would have presented to a road-show orchestra—begins with Sinatra's spoken instructions, and he could be Martin Scorsese telling his cinematographer what he wants in the next shot. "The whole orchestra should be fairly light from the beginning of the vocal," Sinatra says, presumably to Felix Slatkin, the violinist and concertmaster. "From bar eleven . . . to the beginning of the crescendo."

One gathers that Sinatra's studio associates followed his orders not because he was a star and a tough guy but because his suggestions invariably worked like a charm (he is said to have given the arranger Gordon Jenkins the idea for the out-of-the-mist solo French horn that precedes the full orchestra on their 1957 recording of Leonard Bernstein's "Lonely Town"). But in 1993, when he began to record the material for *Duets* and *Duets II* (albums that proved to be his all-time best sellers, and also his recording swan song), he wasn't even in the studio at the same time as his duet partners, an assemblage of rock and pop glitterati many of whom Sinatra had probably never heard of. He simply laid down his vocals and then (in effect) told his producers to send in the clowns.

The night I saw Sinatra, it took all of his concentration just to get the words right. He seemed never to glance at the prompter, but there were times when he probably should have. On "Luck Be a Lady," instead of asking Lady Luck not to "blow on some other guy's dice" he twice asked her not to "spit."

Sinatra's failing memory, rumored to be a symptom of Alzheimer's and to be compounded by failing eyesight, was hardly the only problem on his final tours. The sheer size of the venues he played (the 18,000-seater in Philadelphia where I saw him was far from the largest) precluded the intimacy he needed to put across his ballads. His claim to be just a glorified saloon singer was a showman's conceit; he was a big-band singer who had outlived his era's ballrooms, movie palaces, and music fairs. As a singer whose pipes gave out on him before his desire to perform did, he would have found his natural habitat in

cabaret—if only he could have followed the example of many of the singers he most admired, including Mabel Mercer and Sylvia Syms, and fallen back on his phrasing, limiting his accompaniment to his longtime pianist, Bill Miller. But what room could have accommodated the throngs who wanted to hear him, no matter how many sets a night he pushed himself to perform?

IN his prime, Sinatra wrote the book on phrasing. No other popular singer ever knew better the combined value of precise diction and conversational delivery, and no other has ever been more aware that the beat shouldn't necessarily fall where the rhyme does. (One of a lyricist's jobs is to make the words rhyme; before rap, one of a singer's was to deliver the lyrics in such a way that nobody would notice.) Sinatra may have been an intuitive musician, but he was an analytical singer. He knew that to inflect a word or a syllable that seems not to call for it can shift the rhythm and increase the sincerity of a lyric, by making it more like speech, and can also lavish attention on an especially attractive melodic phrase. If this sounds arcane, just listen to Sinatra sing "Don't change a hair for me" on his 1953 recording of "My Funny Valentine." Most singers stress "change" or "hair," passing up the opportunity to plumb the lowest, most unexpected, and loveliest note in Richard Rodgers's melody. In Sinatra's case the usual stress would also have meant passing up an opportunity to show off his bottom range, which he tended to use sparingly (except when he sang "Ol' Man River") but always to gorgeous effect.

The strings and horns on Sinatra's greatest Capitol and Reprise recordings weren't there for protective coloration, even though some of Sinatra's staunchest champions have questioned his pitch. I side with Henry Pleasants, who argued in *The Great American Popular Singers* (1974) that because the trombonist Tommy Dorsey and the violinist Jascha Heifetz, both of whom Sinatra frequently cited as influences, played instruments of unfixed pitch, Sinatra emulated their "ambiguity of intonation" along with what he once referred to as the "flowing, unbroken quality" of their phrasing.

A taste for Heifetz would explain Sinatra's flair for *portamento*—the ease

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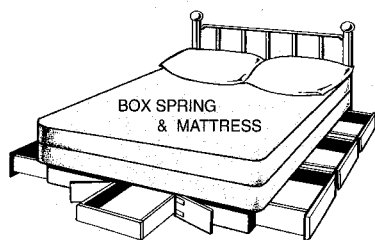
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with which he glided from note to note without taking an audible breath. The tips on breath control that he picked up from watching Dorsey enabled the young Sinatra to hold a note practically forever, as we hear him doing to climax "Ol' Man River" in the 1946 film biography of Jerome Kern, *Till the Clouds Roll By*. I think Pleasants would say that the technique served a greater musical purpose. It allowed Sinatra to deliver lyrics in phrases longer and more irregular than the standard four or eight bars, thus liberating him from the singsongy delivery of most of his generation's white pop singers. And it allowed him while holding a note to move it up or (more often) down the scale without disrupting the melodic flow.

This last trait would also help to explain why Sinatra was drawn to songs liberally spiked with chromatics, including Harold Arlen's "One for My Baby (And One More for the Road)," though Sinatra may initially have responded to the barroom camaraderie in Johnny Mercer's lyrics. The several recordings of this tune that Sinatra made with just Bill Miller on piano (including one from 1993, to close *Duets*, on which Sinatra exploits his aged vulnerability to great interpretive effect) give a hint of the pleasures he might have offered toward the end of his life had he been able to perform in small rooms.

THE explanation usually given for Sinatra's spotty track record on screen is that he didn't take acting as seriously as he did singing. The way I see it, anyone capable of giving performances as nuanced and watchable as Sinatra's in *From Here to Eternity*, *The Man With the Golden Arm*, *Some Came Running*, and *The Manchurian Candidate* has nothing to apologize for. Hollywood misused him, first by remaining skeptical of his sex appeal despite the quakes he set off at the Brooklyn Paramount, and later by giving him carte blanche to run wild with the Rat Pack in vanity productions like *Robin and the Seven Hoods* and *Sergeants Three*.

My favorites among Sinatra's star vehicles are the ones in which his acting and singing are indivisible. *Young at Heart* (1954) is one of Sinatra's best pictures, for the same reason that *Viva Las Vegas* is one of Elvis Presley's: as Ann-Margret was to Presley, Doris Day was to Si-

natra—the female co-star who came closest to matching him in screen presence, singing ability, and androgynous erotic force. (Sinatra also has great chemistry in the film with Ethel Barrymore, who plays Day's aunt, with whom he flirts shamelessly.) *Young at Heart* is a remake of *Four Daughters* (1938), the movie that made John Garfield a star. Sinatra inherited Garfield's role as a Gloomy Gus songwriter who turns up on the doorstep of a cheery small-town family whose eligible daughters are all in love with another composer—a happier, better-adjusted fellow played by Gig Young.

To make ends meet while he helps Young orchestrate his magnum opus, Sinatra takes a job singing and playing piano in a noisy local pub. In a virtual dramatization of Sinatra's own postwar skid he sings "Someone to Watch Over Me" beautifully—shiveringly—but almost to himself, amid the clatter of dinner dishes and the conversation of people doing a fine job of entertaining themselves. The only one paying any attention is Day, who realizes there's more to him than meets the eye. She's as transfixed by his interpretation of Ira Gershwin's lyric as if it were a mating call.

This was Sinatra's rite of passage as a leading man, in real life as well as in the movies. He may no longer have had bobby-soxers swooning in the aisles, but his turn opposite Day suggested that he was capable of turning grown-up women to mush with the bottomless emotion he conveyed in song. Acting was extra.

A question I heard asked on TV following Sinatra's death was whether he was different in private from the way he was in public. My guess would be that for better or worse, he was no different at all. "Sinatra singing a hymn of loneliness could very well be the real Frank Sinatra," James Van Heusen and Sammy Cahn, who probably knew him better than anyone else, once wrote. Wouldn't it be nice to think so? From the very beginning the tension was between Sinatra's image and the slightly different story told by his voice. His initial appeal to teenage girls of the 1940s was comparable to that of Leonardo DiCaprio to pre-teen girls in our quicker, more jaded day. The young Sinatra came across as a boy who might try to sweet-talk a girl into going all the way but wasn't going to be insistent—unlike the boys his fans knew in real life,

most of whom were desperate not to march off to war still virgins. Indulgent parents perceived Sinatra as safe, and so did many of their daughters. Often what young girls want in a boy is another girl, and the girls who swooned over Sinatra pressed him to their hearts as a young man who was as sensitive and, on some level, as self-conscious as they were.

But listen today to Sinatra's recordings with Dorsey and you hear something else—something of which his female fans may have been subliminally aware. You hear a singer whose control of every aspect of his delivery hints at expertise in other areas, including sex. Sinatra's technique and almost literary insight into lyrics gave him greater staying power than any of his rivals singing with big bands. The other quality that separated him from them was the subtlety of his rhythm, which was superior to that of most of the Dorsey band's instrumental soloists and arrangers—even though swinging wasn't necessarily part of a band singer's job description.

IN the late 1960s and the 1970s Sinatra recorded his own interpretations of songs by Stevie Wonder, George Harrison, Paul Simon, and Jim Croce, among others, in a bid to keep himself current. He sounded absurd, and not just because the lyrics held no meaning for him. Whatever its virtues, rock-and-roll doesn't swing, and Sinatra couldn't bring himself not to. Yet neither the implied condescension of these performances nor Sinatra's earlier antipathy toward rock ("the martial music of every side-burned delinquent on the face of the earth," he called it in 1957) has prevented today's middle-aged rockers from claiming him as a father figure, in what one could interpret as an attempt to make peace with their actual fathers.

In presenting Sinatra with a Grammy Legend award in 1994, Bono, of the Irish rock group U2, waxed poetic: "Rock-and-roll people love Frank Sinatra because Frank Sinatra has got what we want—swagger and attitude." But Sinatra singing a ballad could be courtly and compassionate, and much of what Bono and Bruce Springsteen, too, applaud as swagger in his up-tempo performances was actually swing—the *je ne sais quoi* of jazz but a commodity foreign to most of today's rock and pop.

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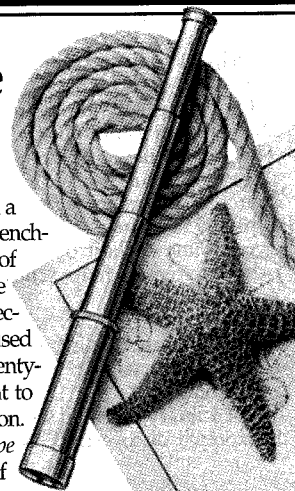
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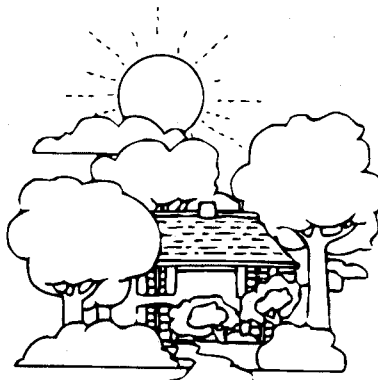
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On an episode of A&E's "Biography" series that was shown a few weeks after Sinatra's death, Camille Paglia said, "Sinatra belongs to a period where men were men and women were women." What seems more important is that he also belonged to the swing era, a period when pop and jazz were more or less the same thing. Sinatra considered himself a jazz singer, and I fear that the fewer Americans there are who know anything about jazz, the harder this aspect of his style is to grasp.

The jazz instrumentalist of whom Sinatra has always reminded me most is the tenor saxophonist Lester Young—perhaps the most innovative soloist to come along in jazz between Louis Armstrong and Charlie Parker. Young first announced his individuality by forgoing the rococo sound projection and big vibrato favored by his day's reigning tenor star, Coleman Hawkins, in favor of a quicksilver tone with almost no vibrato at all. Hawkins was to Young, who in the 1930s used his bottom register only strategically, as Bing Crosby was to Sinatra, who may have been the first pop baritone not to try to make his voice sound deeper. Young's most vital contribution to jazz, however, was the slipperiness of his rhythm—an area in which Sinatra also excelled. Sinatra often swung by postponing or displacing the beat rather than by emphasizing it. On records when we hear Sinatra snapping his fingers, it's usually to acknowledge that he and the beat are a few degrees apart, though destined for a rendezvous.

Young, like many great jazz musicians, adored Sinatra; legend has him sitting in his hotel room across the street from Birdland, alcoholic and near death, playing Sinatra records over and over, perhaps recognizing something of himself in them. Miles Davis also loved Sinatra, and his LP collaborations with the arranger Gil Evans, beginning with *Miles Ahead* (1957), may have been inspired by Sinatra's with Riddle (like Evans, Riddle was a genius at isolating fragments of melody and highlighting specific instruments, especially woodwinds). One of Sinatra and Riddle's models, I think, was the great Count Basie Orchestra of the mid-1950s—a powerhouse noted for its biting brass. References to Basie, both musical and lyrical, abound on Sinatra's Capitol recordings (on

"Come Dance With Me," for example, Sinatra sings, "Hey there, Cutes, put on your Basie boots"), and it seems like more than coincidence that the two men experienced career renewals at around the same time. One of my unsubstantiated Sinatra fantasies is that his chief goal in forming his own label in 1960 was to sign Basie and be able to record with him whenever he desired.

A few nights after Sinatra's death *Nick at Nite* rebroadcast a grainy black-and-white film of a 1965 St. Louis benefit concert featuring Sinatra and Basie on the same bill as Dean Martin and Sammy Davis Jr. The show was promoted as a Rat Pack spectacular, and nobody who tuned in hoping to see the three singers getting juiced together and cracking wise about it would have been disappointed. But Sinatra is all business during his own up-tempo set with Basie, even while being heckled from the wings by Davis and Martin, both of whom are armed with hand mikes. Martin attempts to throw off Sinatra's timing by singing along with him on "Please Be Kind." At one point Martin, after correctly observing a rest, moos the title phrase dead on the beat, a split second ahead of Sinatra. "You got a beat like a cop," Sinatra deadpans, while the Basie band soars behind him. And it's true: compared with Sinatra, most pop singers of his day were flatfoots.

THROUGH middle age Sinatra was inimitable. Not so the blustering old man who, already a self-parody, gave impressionists such as Joe Piscopo and the late Phil Hartman such a broad target—the Sinatra whose anthem became "My Way," a tuneless bolero of self-seduction, less a song than an epitaph inscribed on a tombstone that he dragged onstage with him toward the end.

This Sinatra was the one I saw most often on television in the hours after he died, and before the weekend was over, I wanted to grab a shovel and bury him myself. I hope this doesn't sound as if I resented Sinatra for getting old, or for not calling it quits when he should have. It's just that I fear this is the only Sinatra younger people know, and therefore the Sinatra who will live the longest in our national memory. I don't want to remember him singing "My Way," a lyric that spoke to something crude and self-delusional in contemporary American life and

in Sinatra himself. It's practically a musicalization of Las Vegas, the alternative universe that Sinatra created for himself in the desert when rock-and-roll proved not to be a passing craze. I prefer the Sinatra who sang any number of hymns to romantic love that were as absolute as a Christian prayer, beginning (when I think about it) with his 1939 recording of "All or Nothing at All" with Harry James. Even more I prefer the Sinatra I saw with Count Basie on *Nick at Nite*. That Sinatra was irresistible, not just for his singing but for the cocksure way he moved his shoulders in time with the rhythm section and even for the way he looked in what I have come to think of as his Yves Montand period—fifty years old and no longer pretty, but the perfect image of a uniquely American type, the swinger existentialist, right down to the cigarette and booze and the slight indentation in his right cheek (said to be from the forceps that were used to deliver him) that made him ruggedly handsome as his face started to crease.

In 1965, the same year that Sinatra and Basie did the St. Louis benefit concert that was rebroadcast on *Nick at Nite*, the two also performed together at the Newport Jazz Festival. Among those in attendance in a crowd of perhaps 15,000 was the photographer Burt Goldblatt, who years later wrote about the event in his book *Newport Jazz Festival: The Illustrated History*. Sinatra left the stage by helicopter, already airborne as the applause for him crescendoed.

The audience responded with a genuine outpouring of warmth in return. His impeccable phrasing, his way with a lyric—that night he had it all—and if he had had the greatest public-relations firm working out a dramatic departure, they couldn't have come up with a more effective answer than that slowly ascending helicopter blinking its lights good-bye. When the crowd finally drifted off, something seemed to be missing that night. I think it was the opportunity to tell him in person how great he had sounded to us all.

I wasn't there to see it, but this is the Sinatra I want to remember. ☛

The Atlantic Monthly is grateful to the photographer Phil Stern and his representing agency, CPi, for the use of his photograph as reference in creating the accompanying portrait of Frank Sinatra.



Tuscan Tomatoes

Panzanella combines two ingredients Tuscans hold dear—fresh tomatoes and old bread

THE revival of handmade bread that has, happily, taken hold in many parts of the country means more leftover bread. Just the other day I received in the mail a small softcover book, *Cooking With Artisan Bread*, by the pioneering and excellent baker Gwenyth Bassetti, one of the founders of the Grand Central bakeries, in Seattle and Portland, and Jean Galton, who writes in her introduction, "Our hope is that this book will spare you the guilt of throwing away another wedge of slightly stale—but still wonderful—bread." In Italy the uses for stale bread go far be-

yond French toast and croutons, and some American chefs are so crazy about the Italian way with old bread that they have taken to increasing their bread orders just to let some go stale.

Their aim, often, is to make panzanella, a homey, refreshing salad that takes advantage of the late-summer bounty of ripe tomatoes and offers all the pleasures of dipping bread into the collected juices at the bottom of the salad bowl. Panzanella is the pizza of Tuscany—a bread-and-tomato combination known round the world, perhaps because it's an easy one-dish meal.

by **Corby Kummer**

This one requires no cooking and none of the careful presentation that, say, *salade niçoise* does. (The origin of the lovely name, including its relation to *pane*, the word for bread, is disputed.) Like pizza, the original version is uncomplicated—panzanella constants are bread, tomatoes, onions, oil and vinegar, and basil or parsley, with celery and cucumber as near-constants—and best understood before a cook explores the myriad variations.

Tuscans aren't much good at making pasta, but they did invent the Renaissance. In frugal, blunt Tuscany it's beans or bread. "Tuscans, like Yankees," the Maine native Nancy Harmon Jenkins, who for twenty-five years has had a house in the heart of Tuscany, writes in her new *Flavors of Tuscany*, "are thrifty in their approach to food (truth is, one of their favorite foods is leftovers), and they share a similar passion for beans: Other Italians call them *mangiafagioli*, bean-eaters."

Tuscan bread isn't like any of the sourdough breads currently in fashion here. It's denser and chewier—and fa-

mously saltless, although Jenkins has never found a wholly plausible reason for this (the possibilities include parsimony and tax avoidance). Saltless bread does keep longer; salt attracts moisture, which in turn attracts mold. And bread made with a starter dough, like traditional Tuscan bread and much of the new American sourdough bread, takes longer to get moldy than bread made with packaged yeast. I've never found real Tuscan bread in an American artisan bakery, despite the many good breads I've tasted that go by the name: Americans don't have a taste for saltless bread, let alone the patience for the long, long chew of old Tuscan bread. About the only way you can observe this long life in your own bread box is to bake Tuscan bread, following the directions in *Flavors of Tuscany* or in Carol Field's ever-reliable *Italian Baker*.

Traditional Tuscans bake bread only once every ten days. After the fifth day they think about making one of the dishes based on *pane raffermo*, "firm bread," of which there are, naturally, a lot. One is crostini, slices of bread covered with chicken livers or some other savory spread. Most of the great thick Tuscan soups involve *pane raffermo*: acquacotta ("cooked water"), a simple vegetable soup served over slices of old bread; ribollita, a cabbage-and-bean soup served both over and under slices of grilled bread that are usually drizzled with olive oil (they are also sometimes sautéed, hash-like, with thick leftover soup); and a warm cousin to panzanella—pappa al pomodoro, bread simmered to a pap (hence the name) with tomatoes and vegetables.

Pane raffermo is very firm. Old Tuscan bread does not shatter at the entry of a knife, as stale bread made with commercial yeast does. Under careful, steady pressure it slices into intact pieces, almost like balsa wood. Tuscans reconstitute old bread by dipping it in water, for panzanella, or broth, for crostini; the slices hold their shape. (So do the bagel-shaped barley rusks called friselle in the southern region of Puglia, which are then topped with, for instance, diced tomato, oregano, oil, salt, and pepper. These come with breakfast at Il Melograno, a hotel I love near Bari.)



Panzanella classically begins with soaking slices of stale bread in water. The liquid makes the salad cool and refreshing, and perfect for a hot summer afternoon: dressed with oil and vinegar, the salad both satisfies hunger and, the way acidic drinks like lemonade do, slakes thirst. The texture of the soaked bread is fluffy—very much like the cracked wheat in tabbouleh or like couscous, which is not a grain but tiny pasta pellets. Stale American bread is not fluffy when soaked. It quickly turns to mush. Panzanella made with soaked American bread is more like cold pappa al pomodoro.

THE texture problem led me to try a few alterations in the usual method when I set out to make a plausible panzanella with the "rustic Italian" loaves from my local bakery: omitting the bread bath as a matter of course, and sometimes toasting the bread first. I worried, though, that I was straying too far, like most writers of Tuscan cookbooks in English. So I consulted Fabio Picchi, whose restaurant, Cibreo, is the most celebrated in Florence, at least by people searching for genuine Tuscan food made with the best ingredients—and raw materials are everything in such an unadorned cuisine. The bearded Picchi, whose eyes seem always to be hiding an ironic smile, has the swagger of a turn-of-the-century aristocrat painted by Boldini. He is also something of a kitchen cutup, as I discovered when I assisted him at a dinner he cooked recently at the Four Seasons restaurant, in New York City, to celebrate

the publication of a new edition of Faith Heller Willinger's indispensable guidebook *Eating in Italy*. For the dinner Picchi lugged many heavy cans of Tuscan tomatoes—he doesn't trust imports from southerly regions.

"You're the first person to know my secret, because you're the first to ask," Picchi told me when I quizzed him on panzanella. "I don't soak the bread." This is less for texture than for taste. "I've had too much good panzanella soaked in bad water," he said, pointing out a critical and usually overlooked fact: the taste of water greatly affects a dish. (Jenkins, for in-

stance, uses only Poland Spring water when making bread in her Maine kitchen.) "I'd rather taste just the juice of the tomatoes and the vegetables."

Picchi also condoned my other alteration. After guiding me through his way of making classic panzanella for his restaurant, which has the usual smooth, homogenous texture, he told me of a second version he makes only at home, "because you have to keep a few things for just family and friends." (To try to create a familial feeling at the Four Seasons dinner, Picchi asked the guests to imagine that they had wandered into his kitchen through the back door and were about to eat what he scrounged from the larder—a charming but implausible idea, given the drop-dead chic of both the restaurant's legendary Pool Room and many of the guests' all-black outfits.) This second version, my favorite, is rougher and crunchier, because Picchi first toasts the bread.

THE Cibreo classic panzanella is close to what you might find on a Tuscan farm, prepared at sunup and carried in the late morning to workers in the fields. For an American approximation, tear one or two slices of half-inch-thick bread per serving into rough pieces and lay them at the bottom of a salad bowl. The slices should be firm; if they aren't, heat them on a baking sheet in a 300° oven until they just begin to color, and let them cool. (Jenkins cuts off the crust, but this assumes the leathery crust of Tuscan bread, a rarity here; anyway, I like the resilience of hard crust soaked in juice.)

Mix the tomatoes and other vegetables in a separate bowl, and then toss them with the bread. Like most Tuscans, Picchi uses plum tomatoes, the kind usually reserved for sauce. I recently learned the simple reason that plum tomatoes result in sweeter salads and sauces, from the enthusiastic *Tomato Imperative!* by Sharon Nimtz and Ruth Cousineau: gel and seeds contain most of the acid, and plum tomatoes are almost all flesh. One of my favorite summer pasta sauces is tomato flesh warmed in olive oil for fifteen to twenty minutes.

You can of course use any of the heirloom varieties that have greatly expanded the range of ripe-tomato flavors. This is, after all, a salad to showcase garden

tomatoes, not out-of-season imported "vine-ripened" tomatoes from Belgium, Mexico, or Israel, however much these have improved life beyond August and September. To avoid making bread-and-tomato soup, cut round tomatoes in half and squeeze out the juice and seeds before chopping them into half-inch chunks; for six servings there should be two cups. Peeling is a nicety more important for the standard version, in which the tomato flesh should melt into the bread during thorough soaking, than for the toasted-bread version, in which the tomatoes are mixed with the bread at the last minute.



Among the commonly grown heirloom varieties I find gadrooned (deeply ridged) tomatoes to be fleshy and nicely balanced between sweet and acid; zebra-striped tomatoes are a fine choice too. Yellow tomatoes are generally too watery and wan in flavor. "Sweet 100" cherry tomatoes are addictively sweet, but too seedy and liquid to be ideal for panzanella.

The onions should be minced sweet red onions, about two tablespoons for six servings; to make the flavor yet milder, soak the onion for an hour in cold water, and rinse and drain before adding to the tomatoes. Picchi likes to add about a quarter cup of diced celery heart—the innermost baby ribs, pale and immature, with a few minced very pale leaves. Diced cucumber (about three quarters of a cup) is for Picchi and others a necessity, but he warns that the cucumber must be peeled: "What is this lazy habit of leaving the peel on? The green might be pretty, but it tastes terrible." I take the extra step of removing the jelled core section. Picchi then strews over the vegetables a positive "rain" of finely torn basil leaves—"two big handfuls." Parsley leaves, he says, would be equal or even more Tuscan.

The olive oil should be fruity and peppery—the strongest-flavored, freshest oil you can find, which is likely to be Tuscan. A quarter cup for six will do for a start, and if you love the oil, you can be more authentically Tuscan and as much as double the quantity. Red-wine vinegar is not part of every tomato salad—some people prefer to taste just the sweet-acid tomato—but it figures in any panzanella,

and does make the dish more refreshing; try adding two tablespoons. Plenty of salt and black pepper finish off the tomato-vegetable mixture, along with a secret ingredient: a healthy pinch of finely ground hot red chile pepper, common in Tuscany but not in neighboring regions. Picchi obtains his every Saturday during pepper season, picked and ground fresh by his father. He also adds minced fresh garlic in quantities so small that "no one can guess that it's there"; start with one small clove and add more if you know your guests' tastes. You could also rub a cut garlic clove over the warm slices of bread before tearing them.

For the standard panzanella allow the seasoned tomatoes and bread to sit for at least an hour and a half, covered and in a cool place—but not the refrigerator, which destroys tomato flavor. For Picchi's panzanella *in famiglia*, toast the sliced bread, which need not be terribly firm, to taste—Picchi's preference is very, very lightly, to allow the other flavors to come through. (I like it burnt.) Tear the slices into small chunks and set them aside in a bowl. Combine the seasoned tomato-and-vegetable mixture (to which Picchi, being *in famiglia*, adds garlic with a freer hand) with the bread just before serving.

Variations include adding olives, capers, tuna, anchovies, sliced hard-boiled egg, or some combination of these; all of them together would make something like pan-bagnat, now an overstuffed, sopping-wet sandwich in Nice but originally a salade niçoise left to steep with torn old bread. Willinger, in *Red, White & Greens*, makes "Matzoh-nella," a takeoff from the popular matzoh brei, which begins with soaked matzoh. Odessa Piper, the chef-owner of L'Etoile Restaurant, in Madison, Wisconsin, who has done much to support farmers in her region, told me recently that her favorite midnight supper—one she makes on late-summer nights when she gets home from her restaurant—is mixed salad greens dressed with olive oil and rice-wine vinegar, tossed with heated focaccia or leftover pizza that she snips into bite-sized pieces right over the salad. She saves this treat for herself. Bread salad is an elemental pleasure. ☺

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SYSTEM EFFECTS

by Robert Jervis.
Princeton, 309 pages,
\$29.95.

WHY do our best-laid plans go oft astray? Cities enact rent control in order to ensure an adequate supply of affordable housing, which discourages further investment in residential property and makes affordable housing harder to find. We ban certain drugs in order to protect society from their adverse consequences, thereby encouraging an illegal narcotics traffic that enriches criminals, fuels urban violence, and complicates relations with foreign governments. We welcome the globalization of world markets and hail the Asian economic miracle, only to be surprised when a currency crisis in Thailand triggers a financial panic in Korea and Japan.

Why is the human experience filled with unpleasant surprises like these? The main reason, as Robert Jervis makes clear in his intriguing new book, *System Effects*, is the difficulty of predicting how complex systems will behave. Drawing on a diverse body of scholarly research and a wealth of illuminating examples, Jervis shows that "system effects" are an important and often overlooked part of social and political life. And though he focuses most of his attention on issues of international politics, where system effects are especially prevalent, his insights will capture the imagination of those who puzzle over other social problems as well.

For Jervis, a system effect exists whenever "(a) a set of units or elements is interconnected so that changes in some ele-



ments or their relations produce changes in other parts of the system, and (b) the entire system exhibits properties and behaviors that are different from those of the parts." Thus a system can be a physical entity, such as the solar system; a living organism; or a social organization, such as a free market, a neighborhood, or

an international alliance. Although the boundaries between different systems are largely arbitrary (for example, individual human beings are systems in their own right and also part of a nearly infinite number of social systems), system effects will be present whenever separate parts are linked in a larger whole.

According to Jervis, system effects occur for three distinct but interrelated reasons. First, in addition to the direct effects of any action, the interconnections within a system produce indirect and delayed effects. For example, altering the federal tax code has a direct effect on government revenues, and it also has indirect effects on investment decisions, consumer spending, and the incomes of accountants and lawyers.

Second, when there are more than two actors in a system, the relationship between any two will be determined not just by how they act toward each other but also by the interactions among the other members of the system. In a marriage, for example, the degree of harmony between husband and wife is determined not only by their own compatibility but also by the presence or absence of attractive co-workers, difficult children, and malevolent in-laws. Similarly, relations between two states are often affected primarily by what other states do—as when two states form an alliance solely because a third state threatens them both.

Third, relations in a system are interactive rather than additive. Actions may not lead directly to an intended result, because the outcome also depends on how the other elements in the system respond. For example, one might think that acquiring a player like Shaquille O'Neal would make any basketball team stronger, but this strategy would backfire if his skills did not mesh well with those of the other players on the team. In a system the results of any particular move may depend on the moves that other actors make, and actions taken at one point in time may alter the entire system in ways that lead to very different behavior at a later stage. Relations of cause and effect are often murky, and determining who is responsible for what can be nearly impossible.

Because system effects are everywhere, Jervis emphasizes, “we can never do merely one thing.” Any step we take will have an infinite number of consequences, some that we intend and others that we neither intend nor foresee. A military buildup may deter a threatening adversary and help to preserve peace, for example, but it may also divert funds from other social needs, encourage one's allies to free-ride, and cause formerly

neutral states to become friendlier with one's rivals. The more complex the system and the denser the interactions between the parts, the more difficult it is to anticipate the full effects of any action.

The stability of a given system is often determined by whether the interactions among the parts are characterized by negative or positive feedback. Negative feedback occurs when the elements of a system act to dampen any disturbance (as a thermostat responds to a shift in temperature), thereby tending to preserve the system in its initial state. In contrast, positive feedback reinforces the disturbance and magnifies its effects. “Were it not for negative feedback,” Jervis points out, “there would be no stability as patterns would not last long enough to permit organized society. Without positive feedback, there could be no change and growth.”

In international politics the classic example of negative feedback is the balance of power. The fear of being dominated usually leads weaker states to join forces against stronger or more threatening ones, which is why trying to amass more and more power can be counterproductive and why it has been so difficult for any single state to establish an enduring hegemony over the others. The same logic inspired the system of checks and balances that is embedded in the U.S. Constitution. To enhance the stability of the new republic and to prevent it from falling prey to tyranny, the Founding Fathers divided power among the various branches of government and made it easy for factions to combine, thereby making it hard for a majority consistently to dominate the rest.

When positive feedback is prevalent, systems do not behave in this self-correcting fashion, and small causes may have very large effects. Just as a single snowball can start an avalanche when conditions are right, an entire neighborhood can be transformed if a minority population reaches a “tipping point” that persuades the predominant group to leave en masse. Positive feedback is central to the familiar domino theory, which argues that a single setback can damage a state's credibility, embolden its rivals, and demoralize its allies, thus making subsequent defeats likely. When positive feedback is at work, in short, instability is the norm,

and rapid and unforeseen changes are to be expected.

Unfortunately for would-be social engineers, both kinds of feedback can occur in most systems. This makes it difficult to know which behavior to expect and difficult to predict the effects of a policy change. States in the international system usually balance against powerful aggressors, but occasionally dominoes do fall and states do jump on the bandwagon. Sometimes issuing a threat can trigger an escalating spiral of mutually reinforcing hostility, but at other times a threat can deter a potential aggressor or lead both sides to make a conscious effort to relax tensions. Although Jervis does identify some of the conditions that make positive or negative feedback likely, statecraft remains a difficult art, because it is hard to know in advance which behavior will occur.

DESPITE these uncertainties, Jervis's analysis yields a number of useful generalizations about the behavior of groups—especially states—that are engaged in competitive activities. In a chapter devoted to international bargaining, Jervis shows how leverage over others often depends less on a state's power or resolve than on the structure of the system and the various relations among its other members. In general, states gain leverage when they have a choice of partners, especially when those others have nowhere else to turn. Among the implications of this is that great powers can maximize their leverage by occupying a pivotal position between two hostile powers, as Bismarck's Germany did vis-à-vis Austria and Russia, and as the United States tried to do vis-à-vis the Soviet Union and China.

Another chapter explains why a pivotal position is hard to achieve and even harder to maintain. Jervis argues that social systems tend to become more “consistent” over time, because the members of different groups will form ties with one another and adopt a negative attitude toward one another's enemies. This tendency is partly a reflection of underlying interests (states with similar goals and preferences naturally tend to band together), but it also occurs because a state that tries to stay on good terms with two rivals will face constant pressure from both to prove its loyalty. If pressed

hard enough, a pivotal state will eventually have to choose a side, lest the two rivals conclude that the state is insincere and not to be trusted.

Pressure for consistency is greatest when competition within a system is intense. The leading actors pressure the other members to join them and discourage their allies from cooperating with the enemy camp. Thus inner-city youths are often pressured to join street gangs whether they want to or not, and the United States and the Soviet Union were intolerant of even minor states' neutrality throughout the Cold War. In more relaxed settings, in contrast, actors have room to maintain relationships that are partly at odds with their other connections. Thus intermarriage flourished in the former Yugoslavia as long as Tito was around to guarantee ethnic peace. The subsequent outbreak of war forced even Bosnians of mixed ancestry to adopt a single ethnic identity so as to gain the support and protection of the other members of the ethnic group.

System effects explain many other aspects of political life as well. For instance, the omnipresence of system effects explains why the optimism that accompanies the end of a major war is often misplaced. Because "we can never do merely one thing," today's victories will contain the seeds of tomorrow's troubles. The Western allies won a "war to end war" in 1918, but their victory helped to bring Hitler to power and created a series of weak and vulnerable states in Central Europe, thereby setting the stage for the Second World War. The Allied triumph in 1945 was supposed to redeem the promise of 1918 by making the world "safe for democracy"; instead it launched a long and bitter struggle between the United States and the Soviet Union. The eventual collapse of the Soviet Union was good news for the United States and its allies, but its effects included the 1991 Persian Gulf War, an increasingly delicate relationship between the United States and China, and an unforeseen resurgence of xenophobic nationalism and ethnic conflict.

A systemic perspective also places political leaders in a new light. As Jervis points out, it is harder to judge someone's behavior fairly when system effects are present, because these constraints may force one to do things one

would prefer to avoid, and because the results of one's actions may not be what one intended. Bill Clinton may not be as unprincipled and opportunistic as he sometimes appears; he is operating in a political system that rewards flexibility, penalizes those who cling to unpopular positions, and places relatively little value on personal integrity. Similarly, the thuggish behavior of Saddam Hussein looks different when we take Iraq's position in the system into account. Americans have been encouraged to see the Iraqi leader as the embodiment of evil aggression, but his state is relatively weak, internally divided, and surrounded by powerful enemies. Thus his desire for advanced weaponry and his attempt to grab Kuwait's oil wealth may have been inspired more by Iraq's position in the system than by his own megalomania, and the tendency to view Iraq's behavior solely in terms of Saddam Hussein's personality may explain why our policy toward Baghdad has been so ineffective.

Finally, a systemic perspective highlights both the favorable global position of the United States and the difficulties that such a position creates. The United States is the most secure great power in modern history, and the least dependent on outside help. It has the world's largest and most advanced economy, a robust nuclear deterrent, and conventional military forces that are far stronger than those of any other state. Unlike the major powers of Europe and Asia, it has no potential rivals in its immediate neighborhood. And because the United States is separated by two oceans from the other centers of world power, its strength is less threatening to others and thus less likely to cause them to balance against it. Most states need allies in order to be secure, but the United States can be remarkably secure all by itself. This does not mean that we have no overseas interests or that our allies are of no value, but it does mean that our allies need us far more than we need them.

As Jervis's analysis of international bargaining suggests, the United States gains considerable leverage from its pivotal position in the system. Our freedom of action is the main reason why the old cry of "Yankee, go home!" has been replaced by "Americans, please stay!" And it also explains why Europeans and

Asians grumble about U.S. dominance but are still reluctant to challenge it.

Yet our unparalleled advantages make it more difficult for us to decide what our grand strategy should be. Pundits now deplore the loss of the bipartisan "Cold War consensus" and bemoan the lack of strategic vision in contemporary U.S. foreign policy. But these problems are not caused by failures of leadership; they are a direct result of the unusual position that the United States now occupies. During the Cold War the presence of the Soviet threat focused the mind; today the absence of a major threat to any vital interests makes it harder to achieve consensus on anything.

Unfortunately, thinking in systemic terms cannot provide us with a definitive answer. One could argue, for example, that a reduced U.S. role would force our allies to provide for their own security and would eventually lead to an increase in security competition among the various Eurasian powers. Not only would this enable us to reduce our defense spending (which as a percentage of GNP is still roughly half again as large as the NATO average), but U.S. influence might even increase if the other major powers were more at odds with one another. So withdrawing U.S. forces from Europe and Asia could be in our long-term national interest precisely because it would tend to destabilize relations among the other members of the system and help us to maintain our pivotal role.

The possible system effects do not end there, however. Renewed rivalry in Europe or Asia would threaten the liberal economic order upon which some of our current prosperity depends, and thus create indirect economic costs for a broad segment of the U.S. population. More important, a return to great-power rivalry in Eurasia would also increase the risk of a great-power war, and the United States has in the past found it hard to remain aloof from such conflicts. If we value peace and prosperity, therefore, an equally good case can be made for maintaining our present commitments.

Thinking through the system effects cannot stop there, either. Because our external position is so favorable, our leaders face difficulty in maintaining public support for an extensive array of international obligations. And the very fact that the United States could easily

withdraw means that our allies have good reason to question our commitment, even if we do intend to stay. Paradoxically, if we choose to maintain our current overseas commitments, we may have to do more than we want to in order to persuade our allies that our promises are still good. There is an obvious but unfortunate link between these two problems: If we do too much, our allies will take advantage of our support and we will be likely to get embroiled in conflicts that have no bearing on our security, thereby increasing domestic pressure to withdraw completely. If we do too little, our allies will lose faith in us and begin to make other arrangements, which could eventually increase the risk of war. So how large should the U.S. role be? *Who knows?*

THIS sort of indeterminacy is the main limitation of any systemic approach, even in the hands of a theorist as knowledgeable and perceptive as Robert Jervis. It is usually impossible to forecast all the system effects with confidence, and the line between success and failure may be very fine indeed. Although Jervis leaves little doubt that system effects are pervasive and important, his book cannot tell us which ones to worry about most and cannot help us to eliminate the possibility of calamitous miscalculation.

What advice does Jervis offer? Policy conceived in a system, he suggests, must be conceived in holistic terms. One approach is to try to constrain what the other parts of the system can do, so that their responses do not undermine the purpose of an initiative. For example, food stamps cannot be used to buy lottery tickets or cigarettes, and alliance treaties often commit the signatories to help each other only when one or both are victims of an unprovoked attack.

Another option is to use the interconnections in a system to accomplish one's goals indirectly. Thus New York transit officials were able to reduce the "tagging" of subway cars with spray paint not by patrolling the tracks or by arresting graffiti artists but simply by cleaning each train at the end of its daily service. Once the taggers realized that their efforts would not last long enough to be seen, the prevalence of graffiti dropped dramatically. Similarly, the United

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States and the Soviet Union waged their competition not by attacking each other directly but by each supporting an array of allies and clients who could put pressure on the allies of the other side. This turned out to be a terrific strategy for the West, because our allies were generally much more powerful, stable, and competent than Moscow's.

A third approach is to devise a more comprehensive strategy, whereby certain actions are designed to achieve the main goal(s) and others are intended to magnify positive effects or to compensate for negative consequences. Thus efforts to reduce tariff barriers can be supplemented with job training and placement programs for unemployed workers, and "welfare to work" programs might be combined with improved mass transit and child-care options, so that working mothers could actually get to their jobs and be confident that their children were in good hands while they were away. Similar thinking underlies recent efforts in depleted urban areas to create "empowerment zones," which are based on the belief that healthy communities are sustained by synergies among businesses, schools, churches, and other institutions, and that providing one or two elements will not resurrect a neighborhood if the other elements are missing.

These prescriptions also tell us why system effects are often ignored. Overcoming the complex interactions within a system may require a multifaceted approach, but as the Clinton Administration's ill-fated health-care plan revealed, assembling the political support for a complicated program can be difficult. In addition, politicians have notoriously short time horizons, and are tempted to ignore adverse consequences that aren't likely to materialize until after the next election. It is not surprising, therefore, that politicians are often drawn to simplistic plans even when they are unlikely to work and may make things worse.

Viewed as a whole, *System Effects* offers a sobering and valuable moral. Because everything is connected to everything else, even our greatest accomplishments will sow the seeds of future problems. Accepting that fact is itself an achievement, however, if it frees us from a fruitless search for "magic bullets" or an unwarranted faith in the perfectibility of human societies. ☞

The Pleasures of Formal Poetry

by Elizabeth Frank

THE WORLD BELOW THE WINDOW:

Poems 1937-1997

by William Jay Smith.
Johns Hopkins, 240 pages,
\$29.95.

WILLIAM Jay Smith published his first book of poems in 1947, inaugurating a long and distinguished career in which he has produced more than fifty books of poetry, children's verse, translations, criticism, and memoirs. He has taught at both Williams and Hollins, has served from 1968 to 1970 as Consultant in Poetry to the Library of Congress (a post now called Poet Laureate), and is a member of the American Academy of Arts and Letters. His *Collected Poems*, published in 1990, which included light verse, children's verse, long poems, and translations, has now been augmented by *The World Below the Window*, a gathering of what Smith considers his best serious poems, harvested in celebration of his eightieth birthday. Containing no translations and very few examples of either the light verse or the children's verse for which he is justly known, the book provides a welcome and generous retrospective of Smith's "adult" work, which from its beginnings has been defined by a passionate and deeply informed commitment to traditional rhymed metrical-stanzaic forms.

The volume thus offers a fine array of English verse dressed to kill: sonnets and villanelles; quatrains and couplets; epitaphs, epigrams, elegies, and many varieties of occasional verse. With an artisan's care and conscience, Smith makes full use of all the aural and figurative resources of our language. His tetrameters, pentameters, and hexameters are as in-

tricately crafted as Oriental rugs. Here is his creed, announced in the early poem "Structure of Song":

Its syllables should come
As natural and thorough
As sunlight over plum
Or melon in the furrow,

Rise smoother than the hawk
Or gray gull ever could;
As proud and freely walk
As deer in any wood.

So lightly should it flow
From stone so deep in earth
That none could ever know
What torment gave it birth.

Smith balances his allegiances with his aversions. He loves harmony and measure and thus hates sloppiness in any form: not for him the orotund meanderings of Whitman, Pound & Sons. He cherishes clarity and coherence, both moral and aesthetic, and so his poems often make direct statements in the austere cadences of English "plain style" poetry. At the same time, like Wallace Stevens, he relishes verbal luxury and extravagance, and often interweaves the two modes. Smith is a singer rather than a prophet, and his voice tends toward the elegiac rather than the apocalyptic, the reflective rather than the incantatory. He is rooted in the concrete and the sensuous—in sight, sound, and touch. Where he won't go matters just as much as where he will: despite a genuine capacity and taste for rapture, he distrusts outsize transcendental emotion, and a kind of practical American spiritual skepticism is ingrained in his voice. He is singularly unafraid to acknowledge violence and horror. His poems often end in an ominous detail: "the idiot wind that rakes the pits of hell" ("Processional") or "While, patient in the eaves, the shadows wait" ("A Room in the Villa"). One of the earliest notes in his work is his awareness of war, its waste and puffery and absurdity, and several poems from the section called "Dark Valentine: War Poems (1940-1945)" are among his most vivid and arresting. From the poem "Dark Valentine":

This daylit doll, this dim divinity,
who wipes his chin upon his
frothy cuff,
and sits beside you there and
combs his curls,
as suspect as a Romanoff;

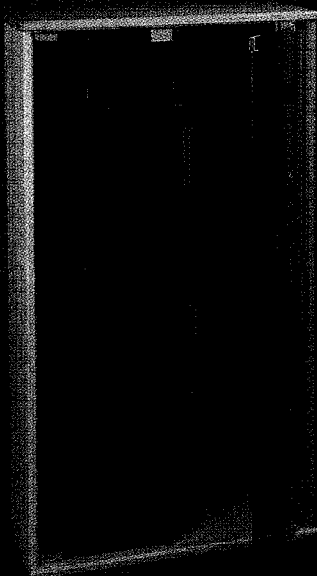
who with the inward ease of
the ventriloquist
makes his insolence so crystalline,
fumbling the bomber-bracelet
on his wrist
to the boogie-woogie of the
radar screen:

Is this the Deity of your Devotions,
Lamb of all your Litanies?
Is this the Olifant of all the Oceans,
the Salamander of some Seven Seas?

SMITH was born in Louisiana in 1918. In his dense and eloquent memoir, *Army Brat* (1980), he re-creates his richly insulated childhood at Jefferson Barracks, an Army post just south of St. Louis, where his father was an enlisted clarinetist in the Sixth Infantry Band. As a student at Washington University, Smith (along with a friend later known to the world as Tennessee Williams) encountered T. S. Eliot and the young English poets W. H. Auden, Stephen Spender, C. Day Lewis, and Louis MacNeice, as well as the great established moderns Yeats, Frost, and Stevens. While earning both bachelor's and master's degrees in French literature, he was steeped in the French Symbolists. Other tutelary spirits included Edwin Arlington Robinson, Marianne Moore, Theodore Roethke, Elizabeth Bishop, and most especially Louise Bogan, with whom many years later Smith collaborated on a superb anthology of children's verse, *The Golden Journey: Poems for Young People*. He and Bogan shared the conviction that modernist feeling could best be developed through submission to the rigors (and pleasures) of form. A high degree of consciousness and self-interrogation could thus co-exist, as it does in Bogan's work, with feeling concentrated in the resonant Symbolist image, as in, for example, "A Note on the Vanity Dresser," from a section called "Looking-Glass World (1940-1950)."

The yes-man in the mirror now
says no,
No longer will I answer you with
lies.
The light descends like snow,
so when the snow-
man melts, you will know him
by his eyes.
The yes-man in the mirror now
says no.

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"In Common"

Across. 1. SHREW + D 5. MO + SCOW 9. HEW + N 11. W + HALE 13. ELDOR(A)DO (anag. + a) 15. S(TE)EWN (news anag.) 16. FOOTLOOSE (anag.) 18. HAWKING (double def.) 20. ARE(A)S 21. A + SWAN 22. ADVERTS (anag.) 24. T(ERROR + IS)M 26. PAN OUT (anag.) 30. POWERFUL (anag.) 31. S + POTS 32. OWED (homophone) 33. TO + W(H)EE 34. SUPPLY (double def.) Down. 1. SHE(A) + F 2. H + ELM 3. ENOS (anag.) 4. DRAG + ON 5. M + OD + S 6. SHARE (homophone) 7. CA(FETE)R + I + A 8. WET(NES)S (rev.) 10. PR + A + LINE 12. LOW-FAT (loaf at homophone) 14. BOWW(IND)OW 17. S(A + V)O + RED 18. HAR(P + IS)T 19. A (SH)ARP 23. DR + OWNS (rd rev.) 24. TOOT + H 25. MOLD + Y 27. TO ME 28. PROP (double def.) 29. FUEL (anag.)

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Arab-Moslem Fanaticism and Intransigence Are they the root cause of Mid-East turmoil?

For the last five decades, the world has been convinced, mostly because of unrelenting Arab propaganda, that the conflict between Israel and the "Palestinians" is the root cause of the constant turmoil in the Middle East and that Israel should make "concessions" to the Arabs. But is that the *real* reason for the turmoil and for the violence? Or is there another much deeper, more fundamental reason behind it?

What are the facts?

Islam's hatred against the West.

We Americans are reluctant to criticize or even to discuss the religions of others. We consider it a personal matter. But the hatred of the Moslem-Arab world against the West, especially against the United States (the "Great Satan") and Israel (the "Little Satan"), can only be explained by comprehending the psychology and the principal religious tenets of Islam. Islam is a world-wide religion, but it originated in Arabia and it survives in Arabia in its purest and most virulent form. The policies of the Arab countries are dominated by Islam. Islam believes itself to be in possession of the holy truth, in the name of which any act of violence is permitted and encouraged. It is only with that understanding that the "strategic decisions" of Saddam Hussein, even with his armed forces at the edge of destruction, can be explained.

Decline and rise of the Arab Moslems. For the first six centuries after the Moslems spilled forth from Arabia, they conquered much of the world, with the sword in one hand and the Koran in the other. The Arab Moslems did in their ascendancy give rise to a substantial civilization. But, beginning with their expulsion from Spain, a long decline set in that lasted until the early 20th century. That decline was the more bitter, because it was inflicted by the despised "infidels." It was something that had to be remedied by whatever means. Injured pride had to be

salved; the enemies who caused this humiliation and this injury had to be destroyed.

The 20th century brought national independence to the Arab states. Two other fundamental events occurred: 1) The discovery of the world's largest oil deposits under the Arabian peninsula, and 2) The creation, in 1948, of the state of Israel, which ever since its birth has been the concentrated focus of the hatred and venom of all Moslem Arabs, a hatred that unites them, that even surpasses their hatreds against each other, and that has launched them into five disastrous wars against Israel. Even the rape of Kuwait by Saddam Hussein's Iraq was

"The real cause of the never-ending turmoil in the Middle East is the unremitting desire of still most Moslem-Arab states to destroy Israel...."

explained as being a step towards the "liberation of Palestine," a claim so bizarre, so patently absurd, that it can only be comprehended and given credence by a mind

obsessed with the ideology of Arab Islam. **Moslem Arabs obsessed with Israel.**

The obsession of the Moslem Arabs with Israel is totally irrational. To have Israel as an independent country in the middle of the Arab-Moslem world is utterly intolerable to them. That is the reason that the 21 Arab states, among them the richest countries in the world, with a combined population of more than 200 million and with a land area greater than that of the U.S., have concentrated obsessive ferocity by military, economic, ideological, political, diplomatic, and any other means to destroy the tiny Jewish community of Palestine, and its successor, the Jewish state of Israel—only 5 million people, in a country just one-half the size of San Bernardino County in California.

Acts of terror in the United States, Argentina, England, and Israel have sobered many who had believed the Israeli-Palestinian conflict to be the cause for the unrest in the Middle East. The fact is that war is endemic in the Arab world and that the Moslem Arabs have been waging war against each other and against their non-Arab neighbors for centuries. But, as much as the Moslem Arabs hate each other, most of them are united in their greater hatred against the "infidel Jews" and their tiny country, and they have built vast war machines for the ultimate "jihad" to nuke the Jews, to poison them by chemicals or biologicals, or to chase them into the sea. The focus on the Palestinian plight is designed to divert attention from the many domestic problems and inter-Arab conflicts, and to direct the Moslem-Arab frustration against Israel, the "infidel Western outsider." The suggestion that Israel divest itself from its historic heartland, the 2,362 sq. mi. "West Bank," and from the Golan would lead to strategic suicide. The real cause of the never-ending turmoil in the Middle East is the unremitting desire of still most of the Arab-Moslem states to destroy Israel, their inability to come to terms with its very existence. That hatred and that intolerance are fueled by Arab-Moslem fanaticism and intransigence and unwillingness to accept diversity in the region. Only when that will be overcome can peace and tranquility finally come to the Middle East.

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33B

Says no. No double negative of pity
Will save you now from what I
know you know:
These are your eyes, the cinders
of your city.

The natural world occupies a large place in Smith's imagination, and he dwells on its details with voluptuous attention. Like Moore and Bishop, he adores particulars and exact observation. We read of creatures, times of day, seasons, weathers, and places, of "Two swans, their floating, fluted necks / Down under feathers' whiteness" ("Evening at Grandpont"), "black pools on the blond sand" ("Slave Bracelets"), and "A twig that snaps flintlike against the mind" ("Quail in Autumn"). Like many English poets, he is obsessed by time and change. "Autumn" concludes,

Time, old hunchback, worn and
yellow,
Whets his scythe on weathered
stone;
While azure mists invade the hollow,
And turkey-red the leaves
come down.

Smith has not one voice but many. He can be contemporary and edgy. He can describe peacocks and chrysanthemums as if enameling a Persian miniature. One of his best-known poems, "American Primitive," turns on perfectly nuanced (and tragic) American vernacular.

Look at him there in his
stovepipe hat,
His high-top shoes, and his
handsome collar;
Only my Daddy could look like that,
And I love my Daddy like he
loves his Dollar.

The screen door bangs, and it
sounds so funny—
There he is in a shower of gold;
His pockets are stuffed with
folding money,
His lips are blue, and his hands
feel cold.

He hangs in the hall by his
black cravat,
The ladies faint, and the
children holler:
Only my Daddy could look like that,
And I love my Daddy like he
loves his Dollar.

In *The Streaks of the Tulip*, a fine, instructive anthology of his criticism, published in 1972, Smith observed that "the artist should find out what he can do and

then do something else,” and that “poetry for me should be continually expanding within its frame.” This is precisely what happened to his work in the mid-sixties, when Smith began publishing extended autobiographical poems in a free verse based on an exceptionally long, supple line.

One of the best of these is “The Tin Can,” which appeared in a volume of the same name. “The Tin Can” is Smith’s “Song of Myself,” though it is by no means a Whitmanesque effusion of self-delight but rather a searching meditation on the poet’s vocation. A passage by Herbert Passin, serving as the poem’s epigraph, explains that “the tin can” is the translation of the Japanese word *kan-zume*—“which means about what we would mean by the ‘lock-up.’” When someone gets off by himself to concentrate, they say, “He has gone into the tin can.”

The poem begins,

I have gone into the tin can; not in
late spring, fleeing a stewing,
meat-and-fish smelling city of
paper houses,

Not when wisteria hangs, a purple
cloud, robbing the pines of their
color, have I sought out the gray
plain, the indeterminate outer edge
of a determined world,

Not to an inn nestling astride a
water-fall where two mountains
meet and the misty indecisiveness
of Japanese ink-drawn pines
frames the afternoon, providing
from a sheer bluff an adequate
view of infinity.

But here to the tin can in midwinter:
to a sagging New England farm-
house in the rock-rooted moun-
tains, where wind rifles the
cracks. . . .

In this poem Smith jumps into the free fall of his long verse line and finds himself buoyed by invisible currents of doubt, desire, fear, and love. We feel his surprise and pleasure in discovering the line’s power to sustain itself and carry him further and deeper into himself. In “Venice in the Fog” he ventures into gentle, courtly praise of late love and sexual comfort: “You step from your warm bath and lie down beside me; my hand moves over the nipples of your breast.” And in “The Cyclist” he ponders the ways of

fate and early death. This work in free verse thus supplements but in no way supplants Smith’s achievements in shorter, traditional forms.

When the whole history of twentieth-century American poetry is eventually written, it will surely be revealed that despite the apparently larger and often noisier triumphs of “open” forms, astonishingly good verse that we can call “metrical” or “formal” has continued to

be written by some of the country’s best poets—Smith himself along with his contemporaries and near-contemporaries Richard Wilbur, John Hollander, and Anthony Hecht. That Smith has written poems replete with rhythm, rhyme, wit, and melody—what Louise Bogan called “the pleasures of formal poetry,” in an essay by the same name—is cause for celebration, homage, and gratitude. ☞

BRIEF REVIEWS



Badge of Courage

by Linda H. Davis.
Houghton Mifflin, 384 pages,
\$35.00.

Ms. Davis explains, in a graceful preface to her biography of Stephen Crane, that he has been much written about and that her own work derives from her surprise and delight at a belated encounter with his story *The Monster*. (She had somehow escaped *The Red Badge of Courage*.) Curiosity led her to research and the discovery that Crane was a versatile professional whose reports (never mind a lot of hackwork) “were forerunners of the brilliant and subjective literary journalism that would distinguish *The New Yorker*,” while he sometimes used a “laconic prose style” that prefigured Hemingway, and his “lines” (poetry, some of it bad) foreshadowed Pound. He began life as the frail son of a hellfire Methodist preacher, became an aggressively bohemian journalist, lived in hand-to-mouth poverty, consorted with Bowery bums and Tenderloin streetwalkers, and by the age of twenty-four had achieved literary recognition and respect as a fiction writer. He acquired a scandalous reputation, a common-law wife, a beautiful and decrepit house in England, and the friendship of Joseph Conrad. As a war correspondent in Cuba, he managed to be the dirtiest and most disheveled of

a necessarily grubby group. He died at twenty-eight, of tuberculosis. His biographer is probably right in assuming that Crane realized early that he had that fatal disease and decided to play his own game by his own rules in the short time in which he could expect to do so. Ms. Davis’s life of Crane, initially inspired by curiosity and fueled by increasing admiration for the man and his work, is what a life should be—well-written, fair-minded, and spirited.

Screams of Reason: Mad Science and Modern Culture

by David J. Skal.
Norton, 304 pages, \$29.95.

Mr. Skal is a devotee of horror movies. He appears to have seen every such film ever made, barring those that have not survived—and he has read about them. He divides the genre into the type descended from Mary Shelley’s *Frankenstein* and the type descended from Bram Stoker’s *Dracula*, without much consideration of the disparate origins of those novels—fear of incomprehensible forces in the first, fear of the malignant dead in the second. Those fears have a long history in myth and folktale. That they now center on the mad scientist is little more than adaptation to current conditions. Although some of Mr. Skal’s observa-

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tions are interesting, they do not require a backlog of old movie plots to make an impression.

Something Happened Yesterday

by Beryl Bainbridge.
 Carroll & Graf, 176 pages, \$20.00.

Until her next novel appears, admirers of Beryl Bainbridge can survive on the wry, witty, irreverent columns she wrote for the *Evening Standard*. These little pieces are fine examples of the art of making something amusing out of nothing in particular. As the author puts it, "The authoritarian voice, the ring of confidence, is not for me. I'm not bothered with causes or hard facts. . . ." What a relief it is to encounter a voice that does not ring from some ideological bullhorn.

The Whereabouts of Eneas McNulty

by Sebastian Barry.
 Viking, 308 pages, \$23.95.

Mr. Barry's novel covers the entire life of McNulty, a harmless Irishman badgered all the way by evils not of his making. As a youth, "having no desire to loiter the rest of his days," he joins the Royal Irish Constabulary, a terrible mistake at the start of the successful liberation campaign of the 1920s. He becomes an exile, with no safety or comfort to be found anywhere. It is a lively story, however, and compels interest both in Eneas as a character and in the varied, usually savage, circumstances that he encounters. Mr. Barry, who is a poet and playwright as well as a novelist, and has a delightful, idiosyncratic, and very Irish way with words.

The First Eagle

by Tony Hillerman.
 HarperCollins, 278 pages,
 \$25.00.

Mr. Hillerman's mysteries are set in a decisively real world, as opposed to the kind of novels in which a world is constructed to accommodate a plot. His Four Corners area has weather, enticingly depicted scenery, bad roads, and a tangle of conflicts pre-dating the action and sure to survive it. Hopi versus Navajo, modernists versus traditionalists,

new love versus old commitment, superstition versus science, are active oppositions. Even the hostility between local authorities and the "Federal Bureau of Ineptitude" can be considered permanent. In the midst of these rivalries the two Navajo policemen, Lieutenant Joe Leaphorn (retired) and Acting Lieutenant Jim Chee (overworked), sort out a disappearance and a murder that may or may not be connected. They are a fine pair and are given a fine puzzle.

Magritte 1898-1967

edited by Gisèle Ollinger-Zinque
 and Frederik Leen.
 Abrams, 336 pages, \$60.00.

With essays by several specialists and more than 500 illustrations (350 full-color or plates), this admirable volume provides a comprehensive view of Magritte's art, from his early experiments with Cubism to his ultimate position as one of the greatest of the Surrealists. The essayists are wary of definite explanations of Magritte, but David Sylvester and Sarah Whitfield have retrieved the text of a lecture that the painter delivered in Antwerp in 1938. Titled "*La Ligne de vie*," it described a few of the artist's experiences and explained his purpose, which was to destroy the deadly, entrenched conformity of bourgeois thinking—a reasonable goal for a socialist. He did not explain why he thought the arbitrary juxtaposition of unrelated objects would accomplish that. What the beautifully painted, provocative images unquestionably do accomplish is to lure the viewer into creating for them whatever context imagination can contrive. The result is likely to be unsettling.

—Phoebe-Lou Adams

Recent books by Atlantic authors:

An Empire Wilderness: Travels Into America's Future by Robert D. Kaplan. Random House, 416 pages, \$27.50. Portions of this book appeared, in somewhat different form, as *The Atlantic's* cover stories in July and August.

Inside the Sky: A Meditation on Flight by William Langewiesche. Pantheon, 240 pages, \$24.00. This book grew out of several articles written for *The Atlantic*.



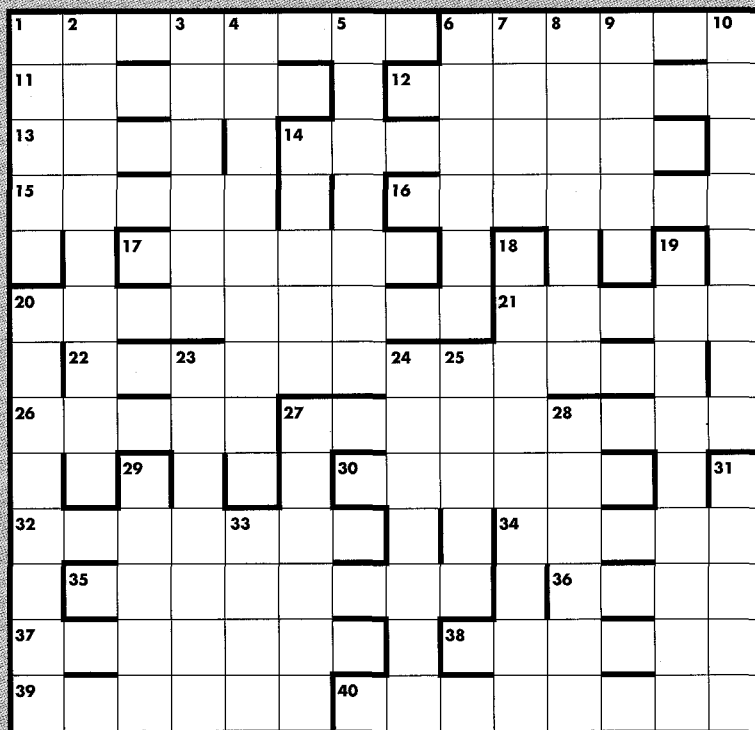
THE PUZZLER

by Emily Cox and Henry Rathvon

Service With a Smile

This is a "Theme and Variations" puzzle, featuring three theme words each having three variations played on it. For example, if a theme word were PIRATES, its variations might be PARTIES, TRAIPE, and PASTIER (anagrams); or HOOK, SILVER, and BLUEBEARD (examples); or PRATES, RATES, and RATS (letter deletions). Three of the Variation words in this puzzle are capitalized, as are two clue answers; 12 Across and 25 Down are chiefly British usages; 5 Down and 28 Down are not in common use.

The solution to last month's Puzzler appears on page 135.



Across

1. Decorated racer in winter gets smart (8)
6. Variation on B
11. Reach for pair of tablets in a box (6)
12. Foreign watch, by the sound of it (7)
13. Put back Iranian money in hiding place (4)
14. Not very bright in one's hour with shrink (8)
15. Cipher called for great ape (5)
16. A Coke is stirred with a teaspoon for a meal item (7)
17. One calling again placed toward the front (6)
20. Variation on A
21. Rock said, "Thousand bucks still not paid" (5)
22. Theme Words A, B, and C
26. Variation on C
27. Get out most of Grace's anagrams (9)
30. Object in space, initially off in distance (6)

32. A tenor housed in noble Italian family's properties (7)
34. I count (backwards) 100 notes (5)
35. Composer reversed part for a soloist? (8)
36. Variation on C
37. Contract G-man returned near the end of day (7)
38. Precious antique, in general (6)
39. Variation on C
40. Chick's covering each street in Maine (4,4)

Down

1. Odd characters in small-town drawing room (5)
2. Man, pig, rat, ape, bird (9)
3. Iran: an awfully fanciful land (6)
4. Variation on A
5. Unmanly saga: "Trio of enemies" (7)
6. "A flock of geese," I answer, "is for the birds" (6)
7. Variation on B
8. Insect that's a little pain in the neck? (7)
9. Try middle of seesaw, for example (5)
10. Hardy heroine has the last word in docility (8)
14. Passes out cold at the conclusion, accompanied by cheers (5)
18. Variation on A
19. The guy's caught by a drop's sticky stuff (9)
20. Sees what people say is left on messy diapers (3-5)
23. Wonder about automobile in distance (7)
24. Moor let loose a quavery note (7)
25. Had a bite during *Mr. Mom* (5)
27. Wet and icy pigpen shelters Civil War general (6)
28. Lou & Bel messed up a furniture design (6)
29. Stick with employees (5)
31. Variation on B
33. Roth attempts penning pronoun

Note: The instructions above are for this month's puzzle only. It is assumed that you know how to decipher clues. For a complete introduction to clue-solving, send an addressed, stamped long envelope to The Atlantic Puzzler, 77 North Washington Street, Boston, Mass. 02114.

WORD COURT

by Barbara Wallraff

IN RULES that are to take effect next month, President Bill Clinton has ordered federal agencies and departments to use “plain language,” rather than jargon, when writing official documents. Wherever people work with words, sooner or later they find themselves struggling with jargon. It’s not *all* bad. Herewith some letters about jargon.

At the magazine where I work, I’ve been frequently hearing the word *repurposing*—as in “repurposing information” (taking material that was designed for print media and converting it to a Web-based format). A colleague wants it banned from our magazine; I insist it’s used universally and is here to stay. What’s your thinking on this neologism?

Emil Vernarec
Nutley, N.J.

I’d never seen the word myself until you wrote, so you can’t persuade me it’s used universally. How-

ever, *The Atlantic*’s new-media people assure me that they’re quite familiar with the word. What’s more, they say they can’t give me any exact synonyms for it—the fundamental test for whether a neologism deserves houseroom or not. The most nearly synonymous word they could think of is *recycling*, except that *recycling* carries unfortunate connotations of garbage.

Repurposing is jargon, but I don’t mean that pejoratively. Within a specialized field, jargon like this serves as shorthand, so that, for example, you and your colleagues don’t need to keep saying “converting print material to a World Wide Web format”; *repurposing* allows for a much more economical phrasing. I’m not eager to see it turn up in nontechnical contexts (say, “Courtney Love, once

thought of as a singer, has sought to *repurpose* herself as an actress and a model”), but I agree with you that the word has its place.

Help! I am a harried copy editor currently working on several college-level textbooks in the field of education. I am beset with clunky verb-phrase constructions that the authors insist have become common parlance in their field. The worst of these is problem solve, as in “When you problem solve with parents and colleagues . . .” Authors insist that my initial inclination to change the phrase to read “solve problems” skews their meaning.

What do you think about this usage? Bear in mind that these folks are teaching the people who will be teaching our children.

Tim Barnes
Champaign, Ill.

On the one hand, specialized fields need specialized jargon for their specialized ideas—as President Clinton recognized in his new rules, which make allowances for “necessary technical terms.” On the other, it’s not as if the idea of solving problems is particularly specialized.

Have you tried telling your authors that *problem solve* (as a unit) isn’t in the dictionary? Presumably, your mandate is to ensure that the texts are in standard English, so the dictionary test is important. Then again, I can understand the position that “When you *problem solve* with parents and colleagues” isn’t identical in meaning to “When you *solve problems* . . .” Maybe it should be “When you work with parents and colleagues to solve problems”? This is the level on which to try to engage your authors: what is the best way to change what they’ve written so as to say what they mean in standard English?

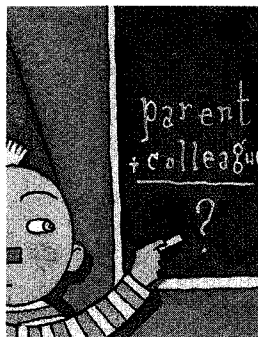
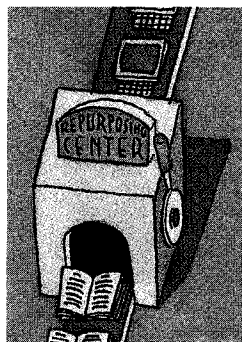
Last week in a meeting the question came up of whether our mission statement should be revised. It reads as follows: “The mission of the steering committee is to foster employee involvement to achieve continuous improvement through communication, recognition, and commitment of both individual and team efforts.” I volunteered right away to revise it, stating that the sentence is too long, has two infinitives, doesn’t make sense, and is just not good English. The response from the department heads was that they had all worked long and hard composing it and it should stay as is. Later my department head came to me and said that if I wanted

to, I should take a shot at revising it. The statement seems to me to be a collection of worthwhile words, randomly thrown together. Is it bad English or just an awkward sentence?

James A. Smith
Millsboro, Del.

No one has told you? Mission statements exist for two reasons only: so that the committee working on one can have a catered lunch brought in, and so that any employee who wants to have a little nap at the office can just get out the mission statement and read it. Never think about this again!

Have you recently had a language dispute that you would like this column to resolve? Write to Word Court in care of *The Atlantic Monthly*, 77 North Washington Street, Boston, MA 02114, or send E-mail to MsGrammar@TheAtlantic.com. All letters become the property of Word Court.





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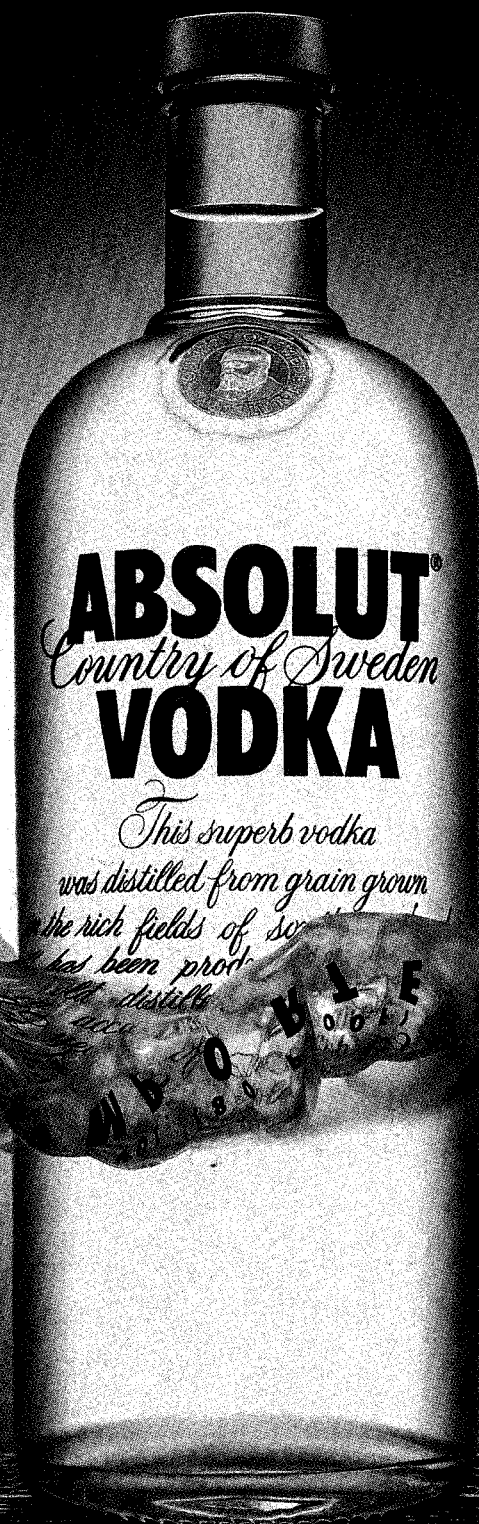
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